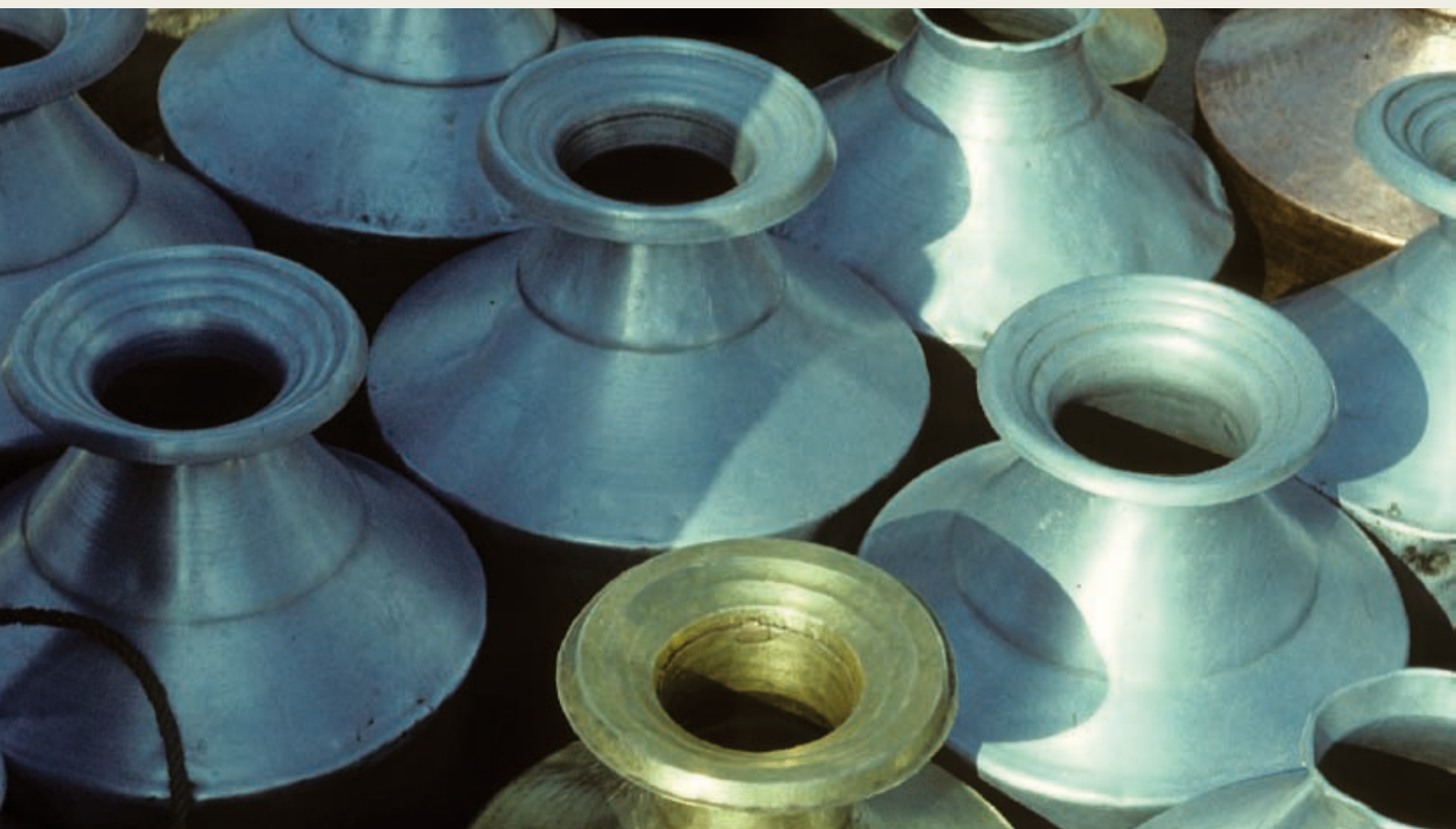


CDE Report 2005/2006



CDE Report 2005/2006

Cover photo: Susanne Wymann von Dach
Photo page 50: Urs Wiesmann

Centre for Development and Environment (CDE)
Institute of Geography
University of Bern
Steigerhubelstrasse 3
CH 3008 Bern
Switzerland
Phone: +41 31 631 88 22
Fax: +41 31 631 85 44
info@cde.unibe.ch
www.cde.unibe.ch



S. Wymann-von Dach

Editorial

The UN declared 2006 the *International Year of Deserts and Desertification*. This 365-day event offered a chance to highlight the beauty and the cultural richness of the world's deserts. At the same time, it provided an opportunity to sensibilise the world to one of the most alarming global processes of environmental degradation – desertification – which in an increasingly globalised world is of concern not only to developing countries but also to the industrialised nations. Many of our programmes have a component that addresses desertification. Based on these involvements, CDE and the NCCR North-South organised an International Symposium on Desertification and Global Change in Bern in May 2006, and on behalf of Swiss Agency for Development and Cooperation, produced a brochure on livelihoods in areas threatened by desertification. For us and our partners, combating desertification and its effects will remain important in our geographic focus regions (see special feature on desertification on pages 28-29 of this report).

Looking back on 2005 and 2006, much has been achieved thanks to the continued commitment of our partners, funding partners, and staff:

In *Research*, the NCCR North-South, initiated in 2001 with the overall goal of mitigating the syndromes of global change, has now evolved into a worldwide research network of 7 institutional partners in Switzerland and over 130 partners abroad, including universities, research institutes, and development organisations. In total, the programme involves over 400 persons, of whom 37% are women, and 63% of whom have nationalities other than Swiss. The programme has made important steps towards integrating and synthesising research results; these steps include, firstly, regrouping its individual projects into work packages, and, secondly, creating transversal packages as a new component in support of the work packages. Important achievements have been made in other research programmes: In Swiss Alpine Research, CDE completed the Management Plan for the *Jungfrau Aletsch Bietschhorn* World Heritage Site after a series of stakeholder workshops. And two newly acquired programmes on land management – one European (DESIRE), one Swiss (COST), now complement CDE's research portfolio.

The *Policy* section provided a wide range of services and products to our partners within national and international networks. This included preparatory work for the formation of the *World Soils Council* established

in 2006, and the publication of the book *Soils on the Global Agenda*. Simulation games were prepared for specific partner projects within the framework of our *Learning for Sustainability* (L4S) approach. Thematic facilitation of workshops and conferences in Switzerland and abroad were also part of the activities of this section, as were the 4 editions of the international peer-reviewed Journal *Mountain Research and Development* (MRD). As 2006 came to a close, WOCAT finalised its overview of conservation approaches and technologies – the WOCAT publication on this topic will be presented to a wider public in early 2007. In providing detailed technical information on successful methods and tools in conservation, the publication will add a much needed positive tone to the global discourse on resource management. Geoprocessing, a key service within our policy portfolio, provided baseline products to Swiss and international programmes for peace keeping, regional development, and disaster prevention. Examples included mandates for the Sudan, Tajikistan, and Afghanistan.

In *Outreach*, programme continuity was secured. Important programmes such as the Eastern and Southern Africa Partnership and Central Asia Mountain Partnership will enter a new phase in 2007. A longer-term programme in the Mountains of South America, *BioAndes*, was launched by Swiss Agency of Development and Cooperation (SDC) in 2006, to which we were mandated to provide backstopping services. These are encouraging developments, as our outreach programmes form the basis of our belief that our work must be rooted in concrete contexts and partnerships.

Relating to our *university engagements*, the years 2005-2006 were marked by the Bologna reform (introduction of BSc alongside MSc programmes) at the University of Bern. This was a chance for CDE, and for the Institute of Geography as a whole, to reposition themselves relating to recent developments in their fields of activity. With the reform, CDE has tripled the number of courses offered. This was possible thanks to the involvement of our senior scientific staff in teaching, and to substantial funding support from the University. As in previous years, CDE staff also had numerous teaching assignments at other universities and institutions of higher learning in Switzerland and abroad.

Relating to *internal operations*, important achievements were made as well. Integrated databanks on projects, staff, publications, partners, and on knowledge management were established and made available on the intranet, and on the website if of public interest. Time reporting has been linked with personnel costs, which will make financial control easier for programmes. CDE has also adopted a more active staff management, which acknowledges the fact that competence, experience, and the know how of our staff are key assets of CDE.

CDE Board of Directors:

Hans Hurni, Urs Wiesmann, Directors

Andreas Kläy, Thomas Kohler, Associate Directors

Urs Balsiger, Chief Administrative Officer

Markus Giger, Staff Representative

Editorial	3
Research	7
NCCR North-South: Research Partnerships for Mitigating Syndromes of Global Change	7
NCCR North-South Management Centre	9
NCCR North-South Transversal Package	10
NCCR North-South: Work Package 4 “Natural Resources in Sustainable Development”	13
NCCR North-South: Transversal Package Project “Natural Resource Management in Trans-contextual Settings”	15
Alpine Research: Jungfrau-Aletsch-Bietschhorn World Heritage Site (JAB)	17
DESIRE: Desertification Mitigation and Remediation of Land	19
COST: Soil and Water Conservation Effectiveness in Switzerland	20
Outreach	22
ESAPP (Eastern and Southern Africa Partnership Programme)	22
Sustainable Land Management Programme (SLM) Eritrea	23
Simen Mountains Programme, Ethiopia	25
Songwe River Transboundary Catchment Management Project, Tanzania and Malawi	26
Central Asia Mountain Partnership Programme (CAMP)	30
Sustainable Land Management in the High Pamir and Pamir-Alai Mountains	32
BioAndes Programme	33
Policy	34
WOCAT – World Overview of Conservation Approaches and Technologies	34
Sustainable Land Management for Policy Dialogue	36
Learning for Sustainability (L4S)	37
International Journal <i>Mountain Research and Development</i> (MRD)	38
Mountain Agenda	39
Backstopping Mandate for the Environment and Natural Resources Section of SDC	40
CDE Info Service	42
University	43
Integrative Courses in Geography	43
Bologna Reform	43
Supervision of Master’s and Doctoral Theses	43
Educational Activities at other Universities	44
Discussions on a ‘Swiss International Graduate School of Sustainable Development’	44
Operations	45
Geoprocessing	45
Peace Building in Sudan: GIS in Conflict Management	47
Editing and Translation	48
Knowledge Management	48
Internet, Intranet, and Database Development	49
Personnel	51
Finances	53

Research

*CDE's **Research Section** consists of all programmes and projects which are primarily concerned with what is usually **oriented research**, in partnership with institutions in partner countries, and which also have an **educational aim at the academic level** (theses and doctoral degrees). Resources come primarily from institutions that promote research, but also from the realm of international cooperation.*

NCCR North-South: Research Partnerships for Mitigating Syndromes of Global Change

The NCCR North-South is one of the Swiss National Centres of Competence in Research that are located at the University of Bern. The programme was developed in 1999 and 2000 by Hans Hurni (Director) and Urs Wiesmann (Deputy Director), together with their partners in Switzerland and abroad. The programme started on 1 July 2001 as one of 14 NCCRs chosen from over 200 competitors.

The NCCR North-South in a nutshell

The NCCR North-South pursues the overall goal of enhancing sustainable development in selected contexts through research partnerships involving institutions in Switzerland and their partners in developing and transition countries. By elaborating and understanding syndromes of global change, identifying mitigating potentials, and supporting innovative solutions, the research programme aims to generate new knowledge, develop research capacities, and support societies in the South and East as well as in Switzerland.

Namely, the NCCR North-South supports and promotes:

- High-quality disciplinary, interdisciplinary and transdisciplinary research on sustainable development
- Institutional and personal capacity development in research in its partner countries and in Switzerland
- Societal empowerment, adaptation and innova-

tion to address syndromes of global change through partnership actions, and

- Establishment of a Swiss Network of Excellence in Sustainable Development Research, including institutionalised inter-university training at post-graduate levels.

During the reporting period, the NCCR North-South team consisted on average of almost 400 members, 37% of whom were women and 63% of whom had nationalities other than Swiss. 118 persons held post-doctoral and senior scientist positions, 95 were PhD candidates, 64 were MSc/MA candidates, and 119 had other staff positions (including senior scientists in management positions and research associates). In the programme's fifth year 12 PhD candidates have successfully completed their projects. From 1st April 2005 to 31 March 2006, NCCR North-South team members produced 325 publications, including 99 peer-reviewed articles, 36 non peer-reviewed articles, 53 contributions to books, 16 book-length publications and 121 reports, and they presented the programme on 306 occasions.

With the start of Phase 2 in July 2005, the programme undertook a major shift in its structure and set-up by reorganising its eight Individual Projects into four new Work Packages (WPs), each embedded in a specific scientific realm with a clear thematic focus. Research in the Work Packages now addresses the following themes: Governance and Conflict Transformation; Livelihood Options and Globalisation; Health and Environmental Sanitation; and Natural Resources in Sustainable Devel-



From Songwe River, border area between Tanzania and Malawi

U. Wiesmann

opment. In addition, based on the experiences of the former transversal theme projects, a new Transversal Package was created to build bridges between the different Work Packages and address the overall theme, 'mitigating syndromes of global change', as well as to include research on the scientific foundations of the NCCR North-South. Through the creation and initiation of a series of 8 post-doctoral projects in the Transversal Package (TPPs), which were identified in an open call and reviewed both externally and internally, high-quality research was initiated by very competent young scientists whose academic careers seem most promising.

Most research projects continue to be conducted in the nine Joint Areas of Case Studies (JACS), which experienced distinct empowerment in Phase 2. Through the explicit formulation of JACS profiles and strategies by all JACS teams in the reporting period, thematic and conceptual coherence was enhanced within the regions, and the negotiating power of the JACS was strengthened within the overall programme. Based on this strengthened position and on the fact that WPs and TPPs now all relate to several JACS, South-South collaboration has significantly increased and developed into a promising collaborative network.

The programme component of Partnership Actions for Mitigating Syndromes (PAMS) is being continued after a thorough internal review and conceptual refinement. An important challenge for the coming years will be to consolidate the inter-institutional set-up between the different universities and institutions in Switzerland and worldwide, with a view

to establishing it as an international network of North-South research partnerships. These initiatives helped considerably to broaden ownership of the concept and the approach of the programme among all its members; they also enhanced collaboration, empowerment of partners in the South, South-South exchanges in general, and overall scientific quality in particular.

Institutional partners

Since its inception in 2001, the NCCR North-South has created a worldwide research network including seven institutional partners in Switzerland and some 150 third party collaborators (e.g. universities, research institutes and development organizations in Africa, Asia and Latin America).

Partners in Switzerland

- Swiss Peace Foundation, Berne
www.swisspeace.org, Prof. Laurent Goetschel
- Graduate Institute of Development Studies (iuéd), Geneva
www.iued.ch, Prof. Michel Carton
- Development Study Group, Institute of Geography, University of Zürich
www.geo.unizh.ch/human/dsg/, Prof. Ulrike Müller-Boeker
- Laboratoire Sociologie Urbaine (LASUR), Swiss Federal Institute of Technology (EPFL), Lausanne
<http://lasur.epfl.ch/>, Dr. Adriana Rabinovich
- Swiss Tropical Institute (STI), Basel
www.sti.ch, Prof. Marcel Tanner
- Department of Water and Sanitation (SANDEC), EAWAG, Dübendorf
www.sandec.ch, Roland Schertenleib



Rural market, Kenya

U. Wiesmann



Terraced landscape, Annapurna, Nepal

HP. Liniger

NCCR North-South Management Centre

Overall Goal

The Management Centre (MC) is in charge of the operational management of the NCCR North-South. Its duties are to support the different NCCR North-South bodies and coordinate common goals, activities and outputs. The MC is responsible for Education and Training, Knowledge and Technology Management, Public Relations and Communication, Coordination of the PAMS, and financial and personnel management of the programme. Currently, 12 persons are working at the CDE in the MC, equivalent to approximately 7 full jobs.

Achievements

As a result of these major changes in the NCCR North-South structure, the different executive bodies of the programme and its entities (e.g. WPs, Institutional Partners (IPs), Regional Coordination Offices (RCOs)), were faced with an increased need to organise coordinating and integrative tasks. This particularly applied to the Management Centre, which had to facilitate the process of transformation within the NCCR North-South Programme and liaise with its implementing agency (SNSF) and co-funding agency (SDC). Besides terminating Phase 1, the MC had to draft contractual arrangements for Phase 2 and adapt various managerial tools (e.g. Rules of Procedure) and introduce them at the different programme levels. These efforts culminated

in the realisation of the 1st North-South Week in Aeschi in the Bernese Oberland in March 2006, where the senior level of the entire programme jointly developed the Annual Research Plan and individual JACS profiles.

A new concept in Education and Training was elaborated which will place clear emphasis on Regional Training Courses in the future. In conjunction with this, the elaboration of five training modules was initiated. A major highlight was the realisation of an Integrated Training and Capitalisation (ITC) Course in Laos. During a 10-day event, results of Phase 1 were capitalised on and research concepts further developed in 6 thematic work groups.

In the Knowledge and Technology Management sector, previous activities were continued and adapted to the new programme structure in Phase 2. The knowledge portal, the programme's electronic knowledge exchange and mutual learning platform, was further enhanced by a feature on scientific publishing. This feature provides the user with a large journal database, a scientific writing module, and model articles.

The application-oriented PAMS projects came to a planned halt after completion of Phase 1. Before the re-launch in autumn 2006, experience in 55 PAMS was capitalised on. This brought insights into mitigation pathways in selected contexts, experiences with societal learning, and contributions in the field



Morogoro, Tanzania

U. Wiesmann

of transdisciplinary research. On this basis, the PAMS principles were reformulated so that they can better benefit and contribute to NCCR research.

Communication highlights included the NCCR North-South lecture series within the framework of the Collegium Generale, University of Bern, a portrait of programme activities in 'Unipress', the University of Bern's official periodical, and several articles on the programme in different newspapers.

Perspectives and key aims

In Phase 2 greater attention will be given to communication and PR activities. For this purpose the NCCR North-South recently hired a Communication Officer, who will be in charge of translating and disseminating research results to politicians, development practitioners, and the wider public. For this purpose an additional website geared towards a general audience is currently under construction, and several information products for policy-makers and the mass media are being prepared. An interesting challenge in the coming year will be to design and implement an integrated impact monitoring and outcome mapping system for the different spheres of activity in the NCCR North-South.

Contact at CDE:
Thomas Breu

NCCR North-South Transversal Package

The Transversal Package (TP) is a new component of the NCCR North-South initiated in the second phase of the programme. Its aim is to support the multidisciplinary Work Packages concerned with research on Governance and Conflict Transformation, Livelihood Options and Globalization, Health and Environmental Sanitation and Natural Resources in Sustainable Development, by promoting platforms and working groups for further integration and synthesis, in order to outline the theoretical, conceptual and methodological foundations of research on syndrome mitigation and sustainable development. The CDE has been entrusted on behalf of the board of the NCCR North-South with coordination of the Transversal Package.

The eight Transversal Package Projects (TPPs) are an important linking element between these integrative platforms and the Work Packages. These highly integrative, innovative and challenging research projects in the TP are entrusted to research teams under the leadership of promising post-doctoral researchers from the North and the South who aspire to university or research careers. The following Transversal Package Projects were launched during this year:



Nanyuki with Mount Kenya in the background

U. Wiesmann



Rufiji, Tanzania

U. Wiesmann

- Extensive Production Systems in Semi-Arid Regions – Options for Sustainable Future Livelihoods (TPP Bonfoh).
Regions involved: West Africa (WAF), Central Asia (CAS), Horn of Africa (HOA)
- The Political Economy of Coffee: Global markets, Local Production and Options for Sustainable Development (TPP Ludi).
Regions involved: Horn of Africa (HOA), East Africa (EAF), South East Asia (SEA)
- From Vulnerability to Resilience: Assessing the Potential and Limitation of a New Conceptual Approach for Pathways to Sustainable Development (TPP Obrist).
Regions involved: East Africa (EAF), South Asia (SAS), South America (SAM),
- The Impact of Development Disparities on Natural Resource Management Negotiation and Decision-making in Trans-contextual Settings (TPP Messerli).
Regions involved: South East Asia (SEA), East Africa (EAF), South Asia (SAS)
- Innovations in Decision-making Processes for Sustainable Urban Projects (TPP Rabinovich).
Regions involved: Caribbean and Central America (CCA), South America (SAM), South East Asia (SEA)
- Operationalising Human Security for Livelihood Protection: Analysis, Monitoring and Mitigation of Existential Threats by and for Local Communities (TPP Schnabel).

Regions involved: Horn of Africa (HOA), Central Asia (CAS), Caribbean and Central America (CCA)

- Sustaining Livelihoods in Trans-local and Trans-national Settings (TPP Thieme).
Regions involved: South Asia (SAS), Central Asia (CAS), Caribbean and Central America (CCA), East Africa (EAF)
- Knowledge, Power and Politics: Evaluating Institutional and Social Practices in Sustainable Development and Syndrome Mitigation Research (TPP Zingerli).
Regions involved: East Africa (EAF), South East Asia (SEA), South America (SAM), Swiss Alps (ALP).

In addition to the TPPs, the Transversal Package established five Transversal Package Mandates (TPM) focusing on

- 1) Gender and Sustainable Development
- 2) Systematization of NCCR North-South research results (between 2001 and 2005) regarding peoples, protected areas and global change
- 3) Trade, growth and poverty, and
- 4) Gender and urban environmental governance
- 5) Pastoral development in Sub-Saharan Africa.

The TPM related to gender and sustainable development is a mandate entrusted to the Interdisciplinary Centre for Women and Gender Studies (IZFG) at the University of Bern. The main goal of the TPM is to



On the shore of Lake Malawi



U. Wiesmann

Kisumu, Kenya

support the Transversal Package in the elaboration and implementation of a coherent strategy that aims to integrate contributions from gender research into the formulation of mitigation strategies and the elaboration of scientific foundations of research for sustainable development.

Contacts at CDE:

Stephan Rist

Hans Hurni

Syndrome mitigation

With regard to Syndrome Mitigation capitalisation on 34 Partnership Actions for Mitigating Syndromes of Global Change (PAMS) carried out within the NCCR North-South in Africa, Asia, Central Asia, South America and Europe represents a key output. The ex-post assessment showed that:

- PAMS covered a wide range of – sometimes contradictory – functions, such as ‘door openers’ for researchers, a means of knowledge and technology transfer, or a chance to enhance dialogue between scientific and non-scientific actors.
- Most PAMS ended up helping significantly to create spaces for mutual learning among the scientific and societal actors involved. Such mutual learning is essentially based on dialogue that led to self-reflection and increased understanding of knowledge represented by the other actors involved.

These findings are consistent with research done by Rist et al. (2006), who demonstrated that social learning processes can be understood as interaction-based, actor-specific transformation of social

capital and cognitive, social and emotional competences. The positive outcome and efficiency of PAMS is thus associated mainly with increasing social capital, rather than mitigating particular core problems. PAMS projects have thus been found to be particularly useful in finding and shaping mitigation pathways that address problems, potentials and social processes.

Scientific foundations of research for sustainable development

With regard to scientific foundations, the main results were related to the validation of the ICT global overviews tool and the development of JACS approaches during the North-South Week in 2006. In the course of Year 5, the Global Overviews tool went through an extensive testing phase. From October 2005 to February 2006 the ‘Challenges of Sustainable Development’ seminar, conducted by Hans Hurni and Urs Wiesmann at the University of Bern, was based on a draft version of the Global Overviews database. The students’ task was to produce assessment models and maps of all Core Problems (CPs), comment on the results, and provide feedback on the technical aspects of the database. About 100 students tested the tool, highlighted its opportunities and limitations, and provided suggestions that can be used in the further development of the tool.

A series of publications advanced the theoretical, conceptual and transdisciplinary foundations of syndrome mitigation research, including issues related to contextualization and generalization. The main results were concerned with the theoretical



U. Wiesmann

implications of transdisciplinarity and sustainable development, gender and sustainable development, the basic dimensions of social learning processes, the application of sustainable development in urban contexts, and the need for a contextualised and transdisciplinary approach to human security.

NCCR North-South: Work Package 4 “Natural Resources in Sustainable Development”

Overall goal

The Work Package 4 (WP4) of the NCCR North-South aims to achieve significant scientific innovation and societal relevance by linking a specialized focus on natural resources with an integrative focus on sustainable development. Based on the achievements of Phase 1, three research themes are being dealt with in Phase 2 that have the potential to generate innovative research geared towards promoting sustainable natural resource management in accordance with the syndrome mitigation concept:

Theme 1: Syndromes and potentials

Natural resources in syndrome hypotheses and mitigation

Theme 2: Resources and approaches

Space, spheres and levels in natural resource management

Theme 3: Information and participation

Knowledge generation technologies in syndrome mitigation.

Achievements

WP4's main effort has been the integration of ongoing research stemming from the former IP1 (NCCR North-South overall conceptual framework) and IP2 (natural resources) into the new work package framework of Phase 2. Approaches and concepts have thus been further developed and relevant work plans elaborated. Furthermore, the harvesting of results obtained so far has been promoted through joint elaboration of scientific articles in accordance with the objectives of the three WP4 themes. Furthermore, the process of compiling various regional and conceptual syntheses has been launched.

Conceptually, the P-PPP (patterns of problems, potentials and processes) approach of syndrome mitigation research was reflected on with a special spatial focus on the overlapping spheres of actors and stakeholders with economic, socio-political and especially ecological divisions of space. The respective links with margins of action in livelihood strategies and in societal learning processes associated with natural resource management were of additional particular interest.

Significant methodological progress was achieved, in particular by

- (1) Developing and testing a user-friendly tool for assessing core problems and potentials of sustainable development at the global level (“Global Overviews”, in cooperation with the Transversal Package)
- (2) Developing GIS-based approaches to detect and analyze spatial patterns of land cover change and poverty at JACS level
- (3) Refining and concretising steps and roles of transdisciplinary approaches in more sustainable natural resource management.

As most studies initiated in Phase 1 were finalised (see box) or are currently in their final stage, a wealth of significant empirical results was harvested in



Rock catchment in Laikipia, Kenya

HP. Liniger

2006. This has led to significant scientific advances along the following four thematic thrusts:

- (1) Land use, land degradation and livelihoods
- (2) Drought, desertification and water management
- (3) Nature conservation and societal valuation and negotiation, and
- (4) Information and ICT in participatory multi-level approaches.

Collaborative activities in WP4 have, on the one hand, concentrated on links with other WPs and more recently with TPPs in various JACS. On the other hand, they have focused on links to the TP, where previous IP1 activities have been taken up on a broader basis. Against this background, WP4 was able to contribute substantially to the overall NCCR North-South research, in particular in relation to the development and application of JACS approaches, the level of conceptual development and the provision of integrative tools.

Perspectives and key aims

WP4 looks forward to the finalization of several of the PhD studies launched during Phase 1 in the coming months. At the same time, promising new fields of research have been launched or are about to be launched, such as research in the Pangani basin in Tanzania on dynamics, valuations and regulations of water-related environmental services, or on future options for sustainable pasture use and new forms of pastoral livelihoods in Central Asia. A substantial

part of WP4's new research seeks to gain momentum by complementing or expanding the scope of research initiated through the TP projects directly linked to the WPs. Efforts to contribute to the NCCR North-South overall aims will also be pursued, such as further development of the "global overviews", and the activities at JACS ALPs level will be considerably strengthened, thanks to additional funds made available by the Programme.

Main partners

- University of Dar-es-Salaam
- Centre for Training and Integrated Research in Arid and Semi-Arid Lands Development (CETRAD), Kenya
- University of Nairobi, Kenya
- Amhara Regional Agricultural Research Institute, Ethiopia
- Central Asia Mountain Partnership (CAMP) Programme, Kyrgyzstan
- Asian Institute of Technology (AIT), Thailand
- Lao National Mekong Committee Secretariat (LNMCS), Laos
- Agroecologia Universidad Cochabamba (AGRUCO), Bolivia
- Jungfrau-Aletsch-Bietschhorn (JAB) UNESCO World Natural Heritage Secretariat, Switzerland.

Contacts at CDE:

Urs Wiesmann

Hans Hurni

Andreas Heinemann



Upland agriculture in Lao P.D.R.

P. Messerli

NCCR North-South: Transversal Package Project “Natural Resource Management in Trans-contextual Settings”

In November 2005, the Board of Directors of the NCCR North-South selected eight so-called Transversal Package Projects to support senior- and post-doc researchers. One of these projects, ‘Natural Resource Management in Trans-contextual Settings,’ employs researchers from the North and the South working in comparative setups in the Mekong Region, Southeast Asia, the Pangani Basin, East Africa, and the Northwest Frontier of Pakistan, South Asia. This project investigates the impact of increasing development disparities on natural resource management at a regional (multi-national) scale. It hypothesises that this impact can be meaningfully understood if the decision-making processes of actors at different levels and scales are studied in a spatially explicit manner.

We therefore asked the following research questions:

- (i) How does the socio-economic development of a region influence the kind and number of stakeholders involved in regional decision-making?
- (ii) How does decision-making at multiple levels influence natural resource use and the provision of environmental functions?

- (iii) Provided that we can answer the first two questions, can we now establish a typology of regions (e.g. poor/rich) that bring about a specific constellation of stakeholders, whose decision-making shapes the provision of environmental functions?
- (iv) If we compare different such patterns, can we provide generalised insights into problematic or promising development pathways? What are the negotiation processes needed? What are the relevant levels and spatial contexts that allow sustainable development?

By June 2006, the project showed the following major achievements:

- Establishment of research teams in all three study regions, consisting of senior researchers, PhD- and MSc-level researchers from different institutions within the NCCR in the North and the South.
- Identification of natural resources on which the research will focus: in the Mekong Delta and in Pakistan, research will focus on the interface between forest and agricultural land and the inherent trade-offs related to environmental functions provided. In the Pangani basin, the topical focus will be on water-related natural resources.
- In June 2006, the TPP held its first international workshop in Vientiane, Lao P.D.R., which allowed development of a conceptual framework for the empirical research that will soon commence.



Vang Vieng, Lao P.D.R.

U. Wiesmann

Perspectives and key aims

The key aims for the following year will be to conduct comparative research in three fields, namely assessment of natural resources and the environmental functions provided to different stakeholders; an exhaustive analysis of decision-making processes among actors at different levels of intervention; and an analysis of regional development disparities containing poverty maps and other socio-economic factors in a spatially disaggregated manner.

Main partners

The main partners in this research project are, in the North, the Development Study Group of the Institute of Geography, University of Zurich, and, in the South, the Lao National Mekong Committee Secretariat (LNMCS), the Sustainable Development Alternatives (SDA) Institute, and the Sustainable Development Policy Institute (SDPI) in Pakistan, and finally the Sokoine University in Morogoro, Tanzania.

Contacts at CDE:

Peter Messerli

PhD's theses completed within WP4 in 2005-2006

Numerous research activities launched during Phase 1 could successfully be completed and capitalized by WP4 in 2006 leading, among other scientific outputs, to nine PhD's: theses:

Breu, Thomas, 2006: Sustainable Land Management in the Tajik Pamirs: The Role of Knowledge for Sustainable Development. Supervisor: Prof. Hans Hurni, Centre for Development and Environment (CDE).

Bichsel, Christine, 2006: Dangerous Divisions – Irrigation Disputes und Conflict Transformation in the Ferghana Valley. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE) (in cooperation with WP1)

Epprecht, Michael, 2006: The Geography of Welfare – Spatial Dimensions of Poverty and Inequality in Vietnam. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE).

Heinimann, Andreas, 2006: Pattern of land Cover Change in the Lower Mekong Basin: The relevance of mesoscale approaches. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE).

Ehrensperger, Albrecht, 2006: Potentials, Limitations and Risks of Geo-Information Technology for Sustainable Development Approaches in Kenya. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE).

Gitonga, Njeru Jeremiah, 2006: Monitoring and modeling crop growth, water use and production under dryland environment North-West of Mount Kenya. Supervisor: Prof. Peter Germann, Abteilung Bodenkunde, und Dr. Hanspeter Liniger, Centre for Development and Environment (CDE).

Ifejika Spreanza, Chinwe Ijeoma, 2006: Drought Vulnerability and Risk in Agro-Pastoral Areas – An Integrative Approach and its Application in Kenya. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE).

Kiteme, Boniface Peter, 2006: Multi-dimensional Approaches to More Sustainable Natural Resources Management in Highly Dynamic Contexts in East Africa. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE).

Eyhorn, Frank, 2006: Assessing the Potential for Organic Farming for Sustainable Livelihoods in Developing Countries – The Case of Cotton in India. Supervisor: Prof. Urs Wiesmann, Centre for Development and Environment (CDE) (in cooperation with NADEL).

(WP4: See pages 13-14)



Site managers and IUCN delegation in the JAB

Management Centre WHS

Alpine Research: Jungfrau-Aletsch-Bietschhorn World Heritage Site (JAB)

In 2001 the Jungfrau-Aletsch-Bietschhorn area was approved as a World Heritage Site (WHS) by the UNESCO World Heritage Committee. As a result of CDE's long-term involvement in regional development in the JAB area within the framework of the MaB-Programme, scientific coordination and the strategic leadership of the World Heritage Site Management Centre are located at CDE.

Overall goal

The objective of this programme is scientific guidance of research and monitoring in the World Heritage Region. The overall goal is to ensure not only quality disciplinary research but also to enhance the quality of integrated inter- and trans-disciplinary as well as application-oriented research activities. Support is given to implementation of goals relating to sustainable regional development as defined in the Management Plan of the WHS.

Achievements

- Finalisation of the Management Plan for the World Heritage Site. The draft was circulated among all involved stakeholders and interested parties in May and June 2005 in a wide and participatory consultation process. The inputs received through this process were used to finalise the Management Plan. A summary of the Management Plan is

available at: http://www.welterbe.ch/_pdf/managementplan_summary_en.pdf

- Together with the nomination file for the enlargement of the JAB World Heritage Site, the Management Plan was submitted by the Federal Office for the Environment to the World Heritage Committee in December 2005.
- Initiation of and assistance to the project groups that emerged from the participatory process. These core groups provide the main content and elementary building blocks for the design and implementation of sustainable development measures. 17 out of 21 fields of action have so far been launched.
- Further development and updating of the database was a continuous project.

Perspectives and key aims

- Publication of baseline studies for the JAB World Heritage Site. These baseline studies will cover various topics such as geology, glaciology, hydrology, natural risks, habitats, history, agriculture, tourism, regional economy, research, and institutional framework as well as their importance for the management of the WHS. The book will be co-published by the Association of the World Heritage Site and the Geographical Society of Berne. The authors of the chapters are members of the research platform of the World Heritage Site.
- Development of a long-term monitoring concept for the JAB region.
- Initiation and assistance of master's theses and bachelor-level studies in disciplinary and interdis-



Stakeholders in the plenary forum, 2005

Management Centre WHS

disciplinary research dealing with regional development, tourism, protected areas, etc.

- Further assistance to the core groups in the fields of action.

Highlights

One highlight was the plenary forum of the stakeholders involved, which took place on Alpiglen near Grindelwald in June 2005 (see photo). At the foot of the North face of the Eiger the stakeholders exchanged project proposals and discussed their implementation.

The submission of the Management Plan to the World Heritage Committee was another highlight in 2005.

In September 2006, an IUCN delegation evaluated the areas proposed for extension of the WHS.

Main partners

Jungfrau-Aletsch-Bietschhorn World Heritage Site Management Centre, www.welterbe.ch

A multistakeholder approach helped draw up the management plan

Within the World Heritage, different notions regarding the use of the region exist. This again leads to conflicts between e.g. nature conservation organisations (conservation) and operators of tourist transport facilities (use of the area as a recreation area). By implementing a multi-stakeholder participatory approach in drawing up the management plan, it was possible to get stakeholders to sit at the same table and to discuss conflict solutions. Today, people are working together in the core groups who would not have worked together before due to their differing perceptions.

Contacts at CDE:

Urs Wiesmann

Astrid Wallner

"Thanks to the World Heritage Site JAB people from the Valais and from the Bernese Oberland are working together for the first time. This is an important achievement!"

(Statement by one of the stakeholders)



Terraces in Morocco

HP. Liniger

DESIRE: Desertification Mitigation and Remediation of Land

DESIRE is an integrated programme of the European Union in the sub priority field of “Global Change and Ecosystems”. WOCAT/CDE contributed to the development of the project proposal, which was accepted in April 2006. It covers a period of 5 years beginning in February 2007, with a budget of more than 8 million Euros. CDE coordinates one of the 6 working blocks on ‘Defining Potential Prevention and Mitigation Strategies’, in which mainly methods from WOCAT and L4S will be applied (for information on WOCAT and L4S, see pages 34 and 37 in this report).

Overall goal

The proposed DESIRE project aims to establish promising alternative land use and management conservation strategies in 18 degradation and desertification hotspots around the world, based on close participation of scientists and local stakeholder groups. It is hoped that this integrative participatory approach will ensure the acceptability and feasibility of conservation techniques, as well as a sound scientific basis for effectiveness at various scales.

Achievements

- Acceptance of proposal in April 2006, currently in the contract negotiation phase at the EU.

Perspectives and key aims

The main aims of Working Block 3 for this period are:

- To identify existing strategies already applied in the test sites by conducting process-oriented ‘learning for sustainability’ workshops including all stakeholders (land users, policy makers, researchers)
- To document and evaluate these existing technologies and approaches with the help of WOCAT methodology
- To identify potential promising strategies through literature/programmes/research reviews.

Main partners

There are 28 partner institutions from around the world, consisting of research institutes, universities, NGOs, and small and medium enterprises. The project is coordinated by ALTEIRA Soil Science Centre in the Netherlands. Together with CDE, the working block coordinating institutions are: ISRIC World Soil Information, the Netherlands; Agriculture University of Athens, Greece; ITC, Netherlands; the University of Leeds, UK; and MEDES, Italy.

Contacts at CDE:

Gudrun Schwilch

Hans Hurni



Sheet- and rill erosion on arable farm land, Switzerland



Interaction between farmers, experts and researchers

T. Ledermann

COST: Soil and Water Conservation Effectiveness in Switzerland

In recent decades, soil degradation research has focused on degradation processes, particularly the on-site impacts of soil and water conservation (SWC) technologies on soil erosion and soil fertility. By contrast, little is known about the positive and negative socio-economic effects on the one hand, and the off-site effects of soil erosion and SWC, respectively, on the other hand. Therefore, this research project, which started in 2005, examines the effects of SWC, both on-site (farms) and off-site (communities, watersheds) in a more comprehensive manner, i.e. taking into account ecological soundness, economic viability, practicability, and social acceptance. It also seeks to determine farmers' rationales for implementing, adapting, innovating with or rejecting SWC (bottom-up approach), taking into account their local knowledge base, with critical assessments of conventional top-down regulation, and incentive-based and innovative bottom-up, farmer-to-farmer-based approaches to implementation.

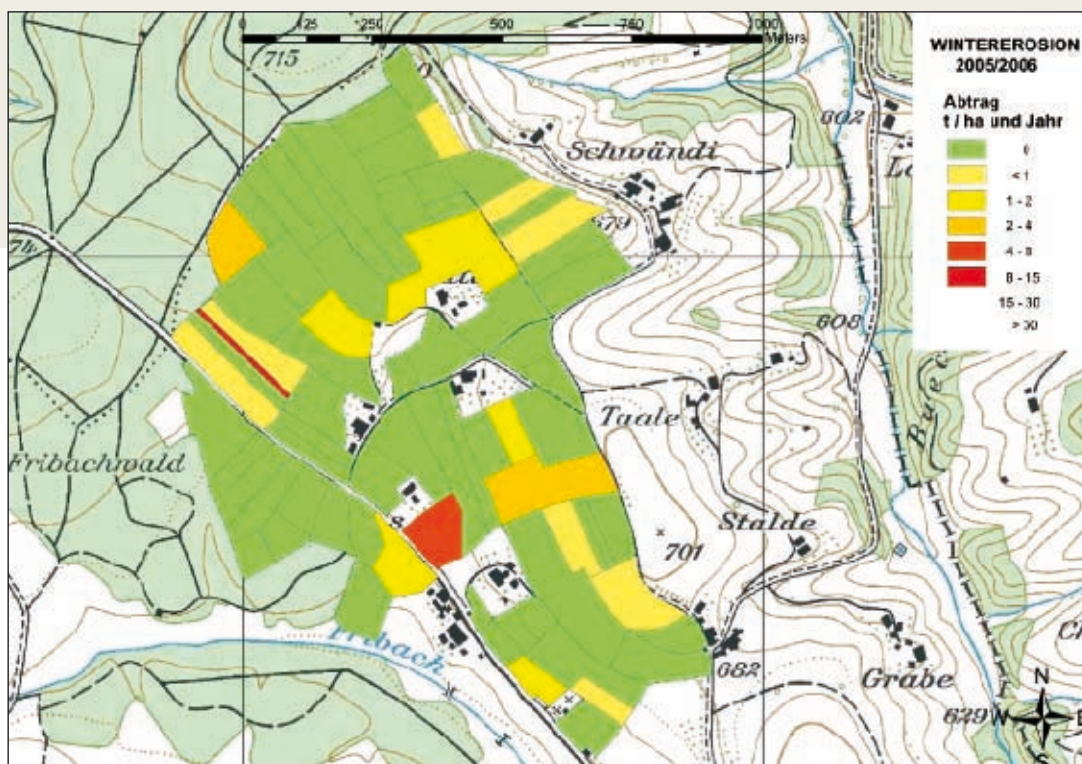
Overall goal

This project aims to optimise a specific section of the agricultural knowledge system related to sustainable agriculture by re-articulating and intensifying the interactions between farmers, experts and researchers. This implies a focus on a fourfold integration of actors, disciplines, topics, and approaches/instruments. It represents a transdisciplinary research approach that contributes to a joint defini-

tion and validation of strategies and means for soil conservation, based on social learning processes with all stakeholders involved. The project addresses critical questions about improvement of interaction in the concerned section of the knowledge system, the lack of instruments for assessing off-site effects of soil erosion, and the need to assess impacts and the efficiency of incentives and innovative extension methods.

Achievements

- **Networking:** Key contacts with farmers, experts, researchers, insurance agencies, etc. have been established. Based on this, an accompanying group was formed, permitting identification and discussion of the main dimensions and indicators to be considered in a comprehensive appraisal of sustainable land use. The project also aims to reflect on and integrate the perceptions and concerns of farmers, experts, and researchers. Three accompanying group meetings have already been held.
- **Erosion Damage Mapping:** Erosion damage mapping has been carried out in two regions (Oberraargau and Estavayer-le-Lac, both in Switzerland) over an area of approximately 800 ha. The methodology has been adapted to the research questions, and information about the current situation of soil erosion in Switzerland has been compiled.
- **Linkage with WOCAT:** One WOCAT questionnaire on technologies ("no-till technology") has been filled in and the first steps towards evaluation/



Erosion damage map, Switzerland

T. Ledermann

adaptation of WOCAT as a tool have been undertaken (for more information on WOCAT, see pages 34-35 of this report).

- **Interviews:** 10 semi-structured interviews with farmers and experts were carried out. Participatory observation and group discussions complemented the information obtained in the interviews, and a great deal of qualitative data with a focus on depth and detail of information have been gathered so far.
- **Workshop:** A workshop dealing with the “from-farmer-to-farmer” project was carried out.
- **University courses:** Two university field courses (one for BSc (1 day) and one for MSc (3 days)) were assisted by our team.

Perspectives and key aims

- finalize PhD-level studies and support the supervision of BSc/MSc theses in the context of COST Switzerland and extend networking activities
- develop a project homepage
- carry on with data collection/analysis, and prepare further outputs, including contributions to scientific magazines, newspapers, presentations, workshops, farmer assemblies, etc.

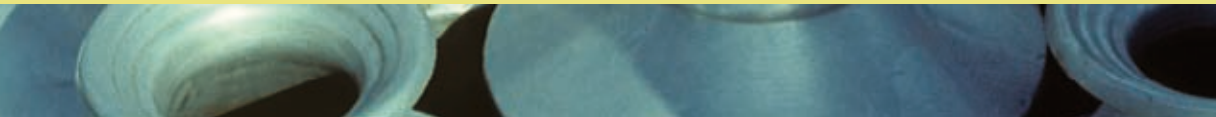
Highlights

Highlights of the past months included the formation of the Swiss COST team; networking, including formation of an accompanying group and the support received by all actors involved, including farmers, as well as the invitation to present the project at a farmer assembly (No-till day) in Switzerland. The project also benefited from training of students, at graduate as well as post-graduate level, which provided additional knowledge through BSc and MSc-level studies.

Main partners

CDE (Centre for Development and Environment), University of Bern, Switzerland; Knowledge Management Environment, Zurich, Switzerland; ART (Agroscope Reckenholz-Tänikon) Research Station, Zurich, Switzerland; WOCAT (World Overview of Conservation Approaches and Technologies); as well as SOWAP (Soil and Water Protection); and not least: „von Bauern - für Bauern“ – a network of farmers for farmers on land management.

Contacts at CDE:
Thomas Ledermann
Hanspeter Liniger



Outreach

The Outreach Section includes all programmes and projects concerned with a specific geographic region. The aim is to contribute to the development of the region in CDE's areas of competence, and to maintain activities in concrete field contexts as the foundation of CDE's competence over the long term. Our responsibilities for programme activities are defined by specific agreements and contract.

ESAPP (Eastern and Southern Africa Partnership Programme)

Overall goal

ESAPP is a programme funded by the Swiss Agency for Development and Cooperation (SDC) and executed by the Centre for Development and Environment (CDE) together with its partners in the Eastern and Southern African Region. ESAPP's mission is to promote Sustainable Land Management and Sustainable Regional Development by means of integrated concepts and innovative tools, research and research partnerships, capacity building, and development support, thereby attempting to enhance economic development, social welfare, and ecological sustainability. It is based on partnership activities involving individuals and institutions.

Achievements

The 2005–2006 reporting period was characterised by a number of important events and highlights:

- The new ESAPP website, which was launched in April 2005, was significantly improved between January and April 2006. This effort focused on the design and establishment of a comprehensive database that allows users to search for projects and project partners on the basis of selected criteria. A database on ESAPP documents and products has also been linked to the CDE publication database. Work to improve this communication tool is ongoing.
- An external evaluation of ESAPP's second phase (2003-2006) took place from March to April 2006. The evaluation team's final report was very positive about the programme and recommended that SDC continue funding ESAPP, with a substantially

higher annual budget, for at least eight years. In September 2006 the ESAPP management team will submit a proposal to SDC for a third phase (2007-2010) of the programme.

- A capitalisation workshop gathering 20 ESAPP partners from six countries was organised in Nanyuki (Kenya) in April 2006. In addition to enabling exchange of experiences, the workshop also provided a platform for an internal evaluation exercise and a participatory definition of ESAPP's future orientation. The results from these exercises provided important material for the formulation of the Phase III proposal.
- The implementation of priority action projects showed great progress in the reporting period. New and innovative ideas were taken up and several projects led to follow-up activities funded by other donors (e.g. the Songwe trans-national river basin management project and support for SDC's rural development programme in Mozambique). One priority action project (the Nakuru Local Urban Observatory) received the 2005 Eugene Lawler Award for Humanitarian Contributions in Computer Science and Informatics for its contribution to participatory urban development.

Perspectives and key aims

ESAPP is currently in transition from the second to the third phase. This transition will be marked by important changes in the programme's orientation:

- South-South collaboration and exchange of experiences will be strengthened by setting up strategic and thematic networks of partners in the region.
- Annual regional workshops will enhance capitalisation on and management of knowledge and will



Participants of the ESAPP capitalisation workshop in 2006

A. Ehrensperger

therefore have a positive impact on the programme's conceptual development capacity.

- Further improvement of the ESAPP website will enable partners to use this tool as a knowledge portal and a means of communication with other partners and with the programme management team. The website will also provide support for knowledge management, programme steering and conceptual development.
- Project submission and reporting procedures will be further simplified and made more transparent. Project evaluation and monitoring mechanisms will be institutionalised through these procedures.
- Project coordination will be partly reviewed and separated from project activities in a more transparent way.

Main partners

The ESAPP programme maintains close ties with a number of partner institutions in Eastern and Southern Africa. These are public institutions, international NGOs and other development partners, universities and private consulting firms. A complete list of partners can be found on the ESAPP website (www.cde.unibe.ch/Regions/Esapp_Rs.asp).

Contacts at CDE:

Albrecht Ehrensperger

Urs Wiesmann

Hans Hurni

Regional coordinators:

Boniface Kiteme, CETRAD (East Africa)

Berhanu Debele (Horn of Africa)

Jürg Brand, DEC (Madagascar)

Sustainable Land Management Programme (SLM) Eritrea

Overall goal

The overall goal of this programme is to support Eritrea in its efforts to promote sustainable land management and improve food security and rural livelihoods, through 3 broad programme clusters. These are, firstly, research, with a primary focus on pearl millet breeding and tissue culture development, in order to strengthen agricultural production and productivity, and a second focus on soil and water management, to safeguard the natural production base. The second cluster deals with education, with a focus on capacity building in land management, including GIS, and participatory assessment and planning. This cluster also includes a scholarship programme for distant education. Outreach is the third cluster, with a focus on supporting regional development and monitoring in test areas. The programme also maintains a spatial database. The Programme is funded by the Syngenta Foundation for Sustainable Agriculture, and implemented jointly with Eritrean partners.

Achievements

- The participatory study on soil and water conservation approaches and techniques was concluded with a back-to-village discussion at Afdeyu, one of the programme's test areas, involving scientists, administrators, and land users – a novel approach in Eritrea owing to the involvement of land users. The results were published in 2006.
- Improved millet varieties – crosses between material from ICRISAT and local landraces met with positive response from farmers – apparently they



Different pearl millet varieties, lowland Eritrea

P. Roden

sell surplus millet as a seed regionally, meaning that the new varieties start spreading without promotional efforts by the project.

- The Tissue Culture Lab at the University of Asmara was installed and an initial training course was given by specialists from Agroscope Switzerland. The first Eritrean MSc thesis was completed, dealing with the (successful) identification of viruses in potato seeds – virus infestation being the main reason for the very low yield levels of this crop in Eritrea.
- Undergraduate teaching at the GIS Lab at the University of Asmara was handed over to Eritrean staff in July 2005. The Lab is made available to external users; it hosted a workshop for Eritrean specialists on GIS and Groundwater evaluation funded by ICRC.
- Funding was secured for Adi Behnuna Primary School, based on a proposal produced by our programme in 2000, and on the efforts of our local partners and the regional authorities. Funding is provided by the World Bank.
- SLM was given a mandate to do a study on livelihoods in Akordat, a town in the western lowlands, in support of the ERI-GERMAN Water Supply Rehabilitation Programme. The study was funded by GtZ. It will be concluded in early 2007.

Perspectives and key aims

- Follow up on project recommendation sheets elaborated in Mid-term Planning Workshop held in Elabered in January 2006; work out concrete projects jointly with Eritrean partners and start implementation.
- Concentrate outreach activities around the programme's two test areas, which are located in the central highlands.

- Seek financial support from third parties for soil and water conservation research, monitoring, and implementation.

Main partners

SLM is based on multiple partnerships. The main partners are the Ministry of Agriculture (National Agricultural Research Institute) and ICRISAT India, the University of Asmara, a local NGO (Vision Eritrea), as well as a professional organisation (Association of Eritreans in Agricultural Sciences, AEAS). Other partners include GtZ, Swiss Humanitarian Aid, ICRC, and UN institutions. SLM Eritrea is also a member of the Swiss Consortium for Eritrea, an informal network of Swiss institutions active in Eritrea.

Pearl millet in Eritrea: Improving livelihoods in semi-arid areas

"Farmers in Shebek, where we have introduced the new millet varieties tell us that the new varieties are the most widely chosen and grown millets in the area now. They say that they sell seeds at a premium to the surrounding villages, so there is a demand. I was concerned that we risk losing the local landraces, and it was agreed that we must look into this in the coming years."

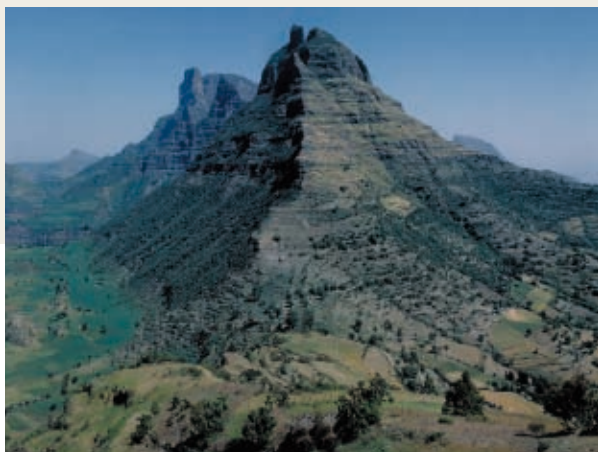
Paul Roden, Programme Coordinator, Asmara

Contacts at CDE:

Hans Hurni
Thomas Kohler

National coordinator:

Paul Roden, Asmara



Panoramic view of Aber Mountains in a remote area of Simen, Ethiopia. 2004

H. Hurni

Simen Mountains Programme, Ethiopia

Swiss institutions have a long-standing record of research in partnership with Ethiopian organisations in the Simen Mountains National Park (SMNP) and its surrounding rural area in northern Ethiopia. Since 1965, missions and field work were undertaken by the University of Zurich to study the endemic *Walya ibex*, a sub-species of the ibex that only occurs in a small habitat of about 100 km² in Simen, which led to the declaration of a national park in 1969.

The University of Bern became involved in Simen since 1973, first by delegating geographers to act as wardens of SMNP (1973-1977), second by making a detailed map at scale 1:25,000 for the area (1978), third by doing specific studies on environment, climate change and development, fourth by assisting the Ethiopian Government to list SMNP as a World Heritage Natural Site in 1978, fifth by regularly carrying out inter- and trans-disciplinary studies as baseline information for development activities, such as in 1983 for developing a management plan for the park supported by UNESCO World Heritage Centre (WHC), in 1994 by providing a baseline study (Hurni and Ludi, 2000) for the Ethiopian Wildlife Conservation Organisation and different international development organisations such as UNCDF, in 2000 by organising a joint mission with high-level officials of Amhara National Regional State (ANRS), and in 2004 by doing a further study supported by the NCCR North-South and ESAPP that intends to support strategic planning by the park administration and regional line agencies of ANRS.

Achievements

- Finalisation of a number of Master theses at the Institute of Geography based on the fieldwork in 2004.
- Publication of two reports in the dialogue series of the NCCR North-South, namely
 - 1) Ludi, E., 2005: Simen Mountains Study 2004. Intermediate Report on the 2004 field expedition. IP7 Working Paper, swisspeace, dialogue series, NCCR North-South, Bern.
 - 2) Hurni, H., 2005: Decentralised development in remote areas of the Simen Mountains, Ethiopia. Impressions from a field expedition to the districts of Janamora, Beyeda, Adi Arkay (Tellemt) and Debark, 21 October to 22 November 2004. IP2 Working Paper 1, Centre for Development and Environment, dialogue series, NCCR North-South, Bern, 45 pp plus map, scale 1:250,000.
- Visit to the SMNP by a joint Swiss-Ethiopian excursion by students and faculty from different Swiss and Ethiopian universities and research institutions in September 2006.
- Consultation for UNESCO in October 2006 by commenting the draft management plan, Simen Mountains National Park, by the Park Development and Protection Authority and SMNP-IDP, Bahr Dar.
- The main outcome of the draft management plan is a realignment of the park boundaries, by excluding a major part of the human settlements and their cultivated land, and including new potential and actual habitat areas of the *Walya ibex*, by proposing clear management zones, and by acknowledging the role of the local population in managing and benefiting from the considerably increased tourism to the park and its surrounding rural area.

Perspectives and key aims

- Production of a synthesis report from the Simen Mountains Study 2008.
- Continuation of support to international, national, regional and local authorities and populations in their efforts to promote sustainable development the Simen Mountains.

Contacts at CDE:

Hans Hurni



Resource management in the Songwe River Basin

S. Künzler-Roth

Songwe River Transboundary Catchment Management Project, Tanzania and Malawi

Introduction

The Songwe River marks the border between Tanzania and Malawi. Human-induced biophysical and socio-economic changes in the river basin area are thought to contribute to increased erosion processes, which lead to an increase in annual flooding and sedimentation, especially in the lower basin areas, affecting livelihoods negatively. Moreover, frequent changes in the river course in the lower basin pose legal and administrative challenges to both governments.

The present project, under the lead of WWF, is being implemented over a three-year period from 2005 to 2008, with funds provided by the Swiss Agency for Development and Cooperation (SDC). CDE and its partners within the East African Network of ESAPP (see page 22 of this report) have been given a mandate to provide support for the entire project period. The transboundary character of the river basin is a challenge to all partners but may also offer valuable insight into transboundary resource management.

Overall goal

The goal of the project is to ensure that the catchment's natural resources are being used in a sustainable manner, human livelihoods are being improved, and adverse impacts on the river and lake ecosystems are minimised. The approach to achieving this goal is to put in place, in a participatory manner, a sustainable water resource management system with respect to land, forest and fisheries management in critical conservation areas.

Achievements

- First Implementers and Steering Committee Meeting held in August 2005. Basic approaches were discussed and a framework for the implementation, monitoring and evaluation of the project was agreed upon. The CDE and its East African Partners are members of the project Steering Committee.
- First field visit to the project area in Tanzania and Malawi in August 2005. Familiarization with the area and initial insights into the environmental and socioeconomic context.
- A concept for capitalisation on project experience was developed and accepted by the project.
- A concept for impact monitoring was developed and accepted by the project.



Local fishermen, Lake Malawi

U. Wiesmann



Resource assessment

S. Künzler-Roth

- The application of economic instruments as tools for improved natural resource management in the basin was initiated.
- Collection of baseline data, procurement of satellite imagery, and initial design of the GIS database as a management tool for the project.
- Land cover classification on the basis of Landsat TM satellite images from 2004 and 1991; monitoring of land cover change.
- Production of an atlas with diverse thematic maps and explanatory text sheets on the area is in progress.
- Significant support given to the project in relation to community development and participatory approaches.

Perspectives and key aims

- Achieve effective cooperation with all stakeholders in the project.
- Support the development of capacity for resource management based on enabling legal and institutional mechanisms.
- Foster dialogue between upstream and downstream communities as producers and users, respectively, of environmental services within the basin.
- Improvement and completion of the GIS database (especially regarding socio-economic and climatic data).
- Mainstreaming of catchment database into regional resource planning and monitoring systems.
- Testing of economic instruments for resource management in the basin.

Highlights

- The delayed entry of two new support organisations – among them CDE – was accepted by the Project Management and the Steering Committee.
- A conceptual framework for the main project outputs and activities was established. The inclusion of ideas and approaches put forward by MPO and CDE into existing project plans resulted in a revised 'Detailed Project Plan'. The project also incorporated a number of concepts and tools suggested by CDE.
- The contracting of private consultants by the project, which completes its support group, and the production of an up-to-date GIS image pool as a basis for decisions on resource planning, which will be used by these consultants and the project.
- The entry of CDE into the Project Steering Committee as 'ex officio member'.

Main partners

CDE's East African Partners within ESAPP, and a number of other operational stakeholders under the leadership of WWF. These are WWF representatives in Tanzania and Malawi; WWF MPO (Macropolicy Programme), Washington DC, USA; WWF SARPO (Southern Africa Regional Programme Office), Harare, Zimbabwe; WWF SARPO, GIS Unit, CETRAD, Kenya; IRA (Institute of Resource Assessment), University of Dar Es Salaam, Tanzania (financed by ESAPP); and three private consultancy firms from southern Africa.

Contacts at CDE:

Silvia Künzler-Roth

Udo Hoeggel

Special Feature: IYDD 2006 – International Year of Deserts and Desertification



"Bab'Aziz - The prince who contemplates his soul"

trigon-film



Irrigation systems in semi-arid areas of Tajikistan

Ch. Bichsel

The UN declared 2006 the International Year of Deserts and Desertification. This 365-day event offered a chance to highlight the beauty and the cultural richness of the world's deserts. At the same time, it provided an opportunity to sensibilise the world to one of the most alarming global processes of environmental degradation – desertification – which is of concern not only to developing countries but also to the industrialised world.

What is desertification?

Desertification is the degradation of land resulting in a loss of biological productivity, with ecological, socio-cultural and economic consequences from the local to the international level. Migration of populations, changes in societal and cultural organisation, lack of balanced nutrition, deterioration of health, and diminution of labour are examples of the consequences of such land degradation in arid and semi-arid areas. Desertification is not only a human-induced phenomenon; it is also influenced by climate change, which adds an additional component of risk and uncertainty.

But semi-arid areas also have a great potential for change and remedial action. For example, when ways are found to bring more water into a degraded zone, rehabilitation occurs more rapidly than in other climatic zones. People in arid and semi-arid regions also have a great potential for innovation and adaptation, developed over centuries of living in these difficult environments.

Activities at CDE related to deserts and desertification

Many of CDE's programmes have a component that addresses land degradation, including desertification. Other activities were more directly related to IYDD 2006. The following paragraphs present an overview of CDE activities concerned with combating desertification.

Optimising household strategies to better cope with drought

More than half of Kyrgyzstan's rural population is located in semi-arid areas, where access to water is the issue households worry about most and has become a delicate subject and source of conflict. Through the CAMP Programme (see pages 30-31 in this report), CDE is assisting communities in optimising their household strategies through diversification of agropastoral production, creation of additional sources of income, investments in innovation, and improvement of the institutional framework.

Research focus

In the NCCR North-South (see pages 11-16 in this report), desertification is a thematic focus area. A number of studies deal with the effects of desertification on land and people, and analyse ways of mitigating this phenomenon.

A non-exhaustive list of publications includes:

- Vulnerability, conflicts and natural resources property rights in the Ingessana Hills, Sudan. (2005)
- Institutional dynamics, management of pastoral resources and vulnerability of the Foulbé nomads in the frontier region of Lake Chad. (2006)
- Monitoring and modelling crop growth, water use and production under a dry-land environment North-West of Mount Kenya. (2005)



Access infrastructure - a crucial issue in drylands

U. Wiesmann

International Symposium on Desertification and Global Change

How can we promote interaction between theory and practice for more efficient management of scarce resources and improvement of livelihoods in arid and semi-arid regions? How can we expand the focus of desertification research beyond purely environmental issues into the broader phenomenon of a complex syndrome of global change, encompassing social, economic, and ecological processes? And how can we identify new ways for scientific research to develop and implement such new approaches? In cooperation with the NCCR North-South, CDE organised an International Symposium on Desertification and Global Change in Bern on 31 May 2006. Four themes were chosen to address the issue of desertification, i.e.

- (1) management of scarce water,
- (2) competition for natural resources,
- (3) market access and social services, and
- (4) climate variability.

For each theme, presentations based on research and presentations from the field provided insight into the differences and similarities among findings, experiences and perceptions.

Participants in the symposium agreed that in order to deal successfully with desertification, it is essential to take into account the specific social, economic and political conditions of the regions concerned. Technical solutions do exist, but are of use only if implemented, and implementation requires the agreement and cooperation of all people involved. It is only by balancing the needs, interests and ambitions of local, regional and national stakeholders that sustainable solutions become possible. Switzerland can

play a significant role in seeking and finding such solutions. In terms of technology, Switzerland is an international leader in the fields of hydrometry and water management. In addition, Switzerland's widely recognized diplomatic standing as a neutral party in matters of development and human rights means it is particularly well placed to act as a mediator in resolving potential conflicts between the various stakeholders involved in combating desertification.

Publication on "Coping with drought"

Insulation of buildings in Kyrgyzstan, protection of agroforestry parks in the Sahel, promotion of traditional carpet manufacturing in pastoral societies, and participatory research on drought-resistant varieties: these are some of the strategies being promoted to cope with the effects of drought, as presented in a brochure which CDE helped prepare under a mandate from SDC. The brochure shows the realities faced by people living in dry areas, and their efforts to improve their living conditions. It also presents approaches used by SDC in support of rural communities, local organisations, national technical services, research institutions, and networks and platforms, in elaborating new ways to deal with increasingly difficult conditions of life in areas threatened by desertification. The brochure was first presented at the 2006 Conference on Desertification, Hunger and Poverty in Geneva. It is available at www.deza.admin.ch.

Contacts at CDE:

Sabine Brueschweiler



Village scene, Kyrgyzstan

H. Meessen

Central Asia Mountain Partnership Programme (CAMP)

Overall goal

Since its inception in 2000, CAMP has helped support the transition process in rural and mountain regions of Central Asia. The programme focus is on dissemination of tested and adapted concepts of sustainable rural mountain development. CAMP is financed by the Swiss Agency for Development and Cooperation (SDC).

Achievements

- Activities focused on consolidation and capitalisation of concepts and tools for Sustainable Mountain Development, which were elaborated jointly with partners such as village organisations, other SDC programmes, and international development agencies.
- CAMP initiated a dialogue between village organisations and governmental agencies and established institutional structures such as village alliances to promote multi-stakeholder dialogue at the strategic level among government agencies in Bishkek and Dushanbe.
- Specific tools concerned with natural resource management, village development planning, energy efficiency, and disaster prevention were developed and tested at the village level and transferred to partners, who often adapted these tools to their specific needs.

- The CAMP partnership approach and specific tools were “discovered” and used in other CIS mountain / rural regions. Partners in the Caucasus - REC Caucasus (see box below), and a pilot project in the context of Swiss Scientific co-operation with Eastern Europe (SCOPES-FNSNF) – both working in Russia, Azerbaijan, Armenia and Georgia – adapted CAMP's tools to their specific needs.
- CDE and CAMP local staff succeeded in introducing real on-site participation in Pamir and Tien Shan mountain villages. For people in mountain and rural regions, participation in CAMP village development processes means regaining a feeling of responsibility and creating new cooperation structures at village level, based on younger, motivated people who are able to develop new opportunities on their own initiative.

Perspectives and key aims

- In its upcoming fourth phase (2007- 2008) the programme will develop an adequate institutional structure and set-up with a focus on Tajikistan and Kyrgyzstan, in order to ensure capitalisation and continuation of activities once the programme and SDC support are phased out.
- There is also a clear potential for capitalisation on CAMP's concepts and tools in other CIS countries and in Eastern Europe. This could be achieved through Swiss contribution to the EU cohesion process.



Seminar participants

H. Meessen

- Synergies and complementarities with other CDE Programmes, such as the NCCR North–South and the GEF “Sustainable Land Management in the Pamir-Alai Mountains” project, will be exploited in the period to 2010.
- Capitalisation on and up-grading/up-scaling of CAMP concepts and tools in all Central Asian Republics and other CIS regions from 2007 onwards can be seen as a contribution to IYM 2002 + 5.

Partners in Central Asia

CAMP priority partners are village communities in Central Asian mountain regions; CAMP supports their concrete local projects. The most important international partners include:

- The German and Liechtenstein Ministries for Environment, which support the alliance of Central Asian mountain villages (ACOZA) as well as the Transfer of CAMP approaches to other mountain regions of the Commonwealth of Independent states (CIS)
- The Gesellschaft für Technische Zusammenarbeit (GtZ), which supports CAMP activities in connection with the CCD process
- SECO, a branch of the Swiss Foreign Ministry that cooperates with CAMP in support of demand-side management in the energy sector in mountain regions (insulation of private and communal buildings)
- The World Bank’s Village Investment Programme (VIP), which contracted CAMP/CDE about joint development of a participatory tool for Village Development Planning.

Linking rural development across CIS mountain regions

In the framework of the „Sustainable Development of Mountain Regions of the Caucasus – Local Agenda 21“ partnership project, representatives from 8 mountain villages from Armenia, Azerbaijan, Georgia and Russia met on 6 August 2006 and decided on the establishment of a trans-boundary network of mountain villages in the Caucasus. The Caucasus mountain village partnership is to cover all areas of sustainable development, and is primarily aimed at developing the economic potential (mountain agriculture, tourism, traditional crafts) of remote mountain regions.

The Programme is implemented by the Regional Environmental Centre (REC Caucasus) and financed by the governments of Germany and Liechtenstein. Since 2003 RECC programme and partner staff have been trained by CAMP and CDE in approaches to village development planning and sustainable use of natural resources under CIS mountain conditions.

“The establishment of this Caucasus alliance is based on CAMP experience since 2000, and on CAMP’s Alliance of Central Asian Mountain Communities, AGOCA”.

Nina Shatberashvili, regional coordinator of the RECC Caucasus Programme

Contacts at CDE:

Heino Meessen
Ernst Gabathuler
Andreas Kläy
Daniel Maselli
Urs Wiesmann

Regional coordination, Bishkek:

Regula Imhof



Pamir Mountains, Tajikistan

Ch. Hergarten

Sustainable Land Management in the High Pamir and Pamir-Alai Mountains

Building on the results of the Pamir Strategy Project, an SDC-funded activity for the International Year of Mountains 2002, CDE elaborated, in cooperation with United Nations University (UNU), a proposal for a project development fund (PDF B). After endorsement by the Global Environment Facility (GEF), a CDE team was prominently involved in preparation of selected outputs and the elaboration of a full proposal for a period of two years. On 1 August 2006, the GEF Council approved this proposal for an 8-year project with a total budget of 18.65 Mio USD.

Overall goal

The main objective of this project will be to develop and implement an integrated management system for the preservation and rehabilitation of natural resources in the Pamir-Alai mountain areas of Tajikistan and Kyrgyzstan. It is expected that this project will enhance livelihoods among the local populations and contribute to sustainable land management (SLM) in this remote mountain area and adjacent lowlands.

Achievements

- Approval of the proposed project by GEF
- Synthesis report on SLM baseline survey
- Provision of methodology and training on the Sustainable Development Appraisal (SDA)
- Study of best land management practices
- Elaboration of a detailed GIS-based decision-support tool

Perspectives and key aims

Currently, the scope and the involvement of CDE in the full project are being discussed with its main partners. Depending on the outcome, CDE could have a major involvement in future in the following components:

- Providing an expert team for baseline research related to natural resources
- Providing concepts and principles for SLM and its streamlining in Tajikistan and Kyrgyzstan
- Implementing innovative and participatory SLM approaches
- Helping to set up a capacity development programme
- Contributing to refinement of the decision-support system worked out in the previous project
- Development of monitoring and impact assessment instruments

Main partners

Global Environment Facility, as the funding agency; United Nations Environment Programme (UNEP), as the implementing agency; Ministry of Environment and Nature Protection (Tajikistan), the National Centre for Mountain Regions Development (Kyrgyzstan), in collaboration with the United Nations University (UNU), as the executing agencies; international and local civil society and research organizations still to be selected.

Contacts at CDE:

Thomas Breu

Hans Hurni



Local varieties of Andean roots and tubers (mashwa – *Tropaeolum tuberosum*, oca – *Oxalis tuberosa*, and ulluco – *Ullucus tuberosum*) in Pitumarca District, Peru



Weaving using alpaca wool and natural dyes in Pitumarca District, Peru

Sarah-Lan Mathez-Stiefel

BioAndes Programme

Overall goal

BioAndes is a long-term 10-12 year regional programme in the Natural Resource Department of the Swiss Agency for Development and Cooperation (SDC).

The programme's overall goal is to contribute to the conservation of the economic, socio-cultural, and political valorisation of biodiversity in the Andean regions of Bolivia, Peru, and Ecuador. It is executed by a consortium of three local institutions under the lead of AGRUCO (University Mayor de San Simón de Bolivia) and implemented by a network of NGOs, universities, and local organisations through a competitive fund. Besides having contributed to the design of the programme, CDE has a mandate for conceptual and methodological backstopping to support the members of the BioAndes Consortium.

Achievements

The reporting period corresponds to the launch of the programme and its initial activities:

- Preparatory activities included final selection of the areas of intervention, the establishment of initial contacts and agreements with the local authorities, and appraisal of areas of intervention.
- At the programme management level, the BioAndes Consortium met a total of four times. It elaborated the Annual Operational Plan for 2006, the Terms of References for each specific project, and regulations for the functioning of the competitive fund.
- BioAndes' Directorate was created with representatives from SDC, the governments of Bolivia,

Peru, and Ecuador, and the BioAndes Consortium. Its first meeting was held on August 11, 2006, in order to approve regulations for the competitive funds and the ToRs for BioAndes projects.

- After a public bid and a selection process carried out in the three countries, the first projects were launched in November 2006.

Perspectives and key aims

It is expected that all BioAndes projects will be in full swing in the next reporting period. The key aims for 2007 and 2008 include:

- To successfully implement the planned activities in areas of intervention in the fields of institutional and human capacity building, knowledge management and action-research, and bottom-up policy support.
- To strengthen the conceptual basis of BioAndes, namely the concepts of "bio-cultural diversity" and "bio-cultural spaces" and to develop integrated methods for the achievement of the programme's objectives.
- To ensure effective coordination between all the partners involved (SDC country offices in Bolivia, Peru, and Ecuador, BioAndes' Consortium, the implementing agencies, and local authorities in the intervention areas).

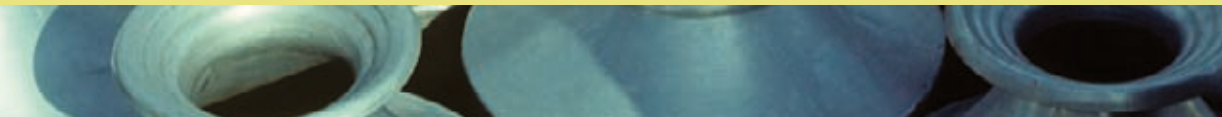
Partners

AGRUCO, Cochabamba, Bolivia
EcoCiencia, Quito, Ecuador
ETC Andes, Lima, Peru

Contacts at CDE:

Stephan Rist

Associate expert, Lima: Sarah-Lan Mathez-Stiefel



Policy

Work in the *Policy Section* focuses on *policy advise and awareness raising* for implementing agencies, and is carried out by CDE in the context of its own programmes and under mandates for partner institutions. Included here are programmes, networks and mandates that develop *services and products for general application in international cooperation*.

WOCAT – World Overview of Conservation Approaches and Technologies

WOCAT is a global network of soil and water conservation specialists which was initiated in 1992. National and international institutions use WOCAT methodology to document, evaluate and disseminate knowledge about sustainable land management.

Overall goal

WOCAT's vision is that existing knowledge about sustainable land management is shared and used globally to improve livelihoods and the environment. WOCAT supports decision-making and innovation in sustainable land management by connecting stakeholders, enhancing capacity, and developing and applying standardised tools for the documentation, evaluation, monitoring and exchange of knowledge about soil and water conservation.

Achievements

- Compilation of 42 documented technologies and 28 approaches was completed, each attractively presented on 4 pages. A draft of the global overview book entitled '*Where the land is greener*' was produced. It contains an analysis of the case studies, with conclusions and policy points. The book was completed and published by the end of 2006, and constitutes a major milestone for WOCAT.
- The South African WOCAT team has developed a first draft of a new WOCAT map viewer.
- Several training workshops were carried out: in Ethiopia (twice with the Ministry of Agriculture), India (together with the DANIDA watershed programme), Bangladesh, Kenya (with international rainwater harvesting networks), Turkey (with the



Documenting loess terraces in Gansu Province, China

HP. Liniger

International Atomic Energy programme) and China (with GEF and ADB programmes in drylands).

- WOCAT held its Annual International Workshop and Steering Meeting in September 2005 in Belgrade.
- Further collaboration took place with applied research networks, such as NCCR North-South, COST 634, IAEA and SOWAP. New or enhanced collaboration will take place with the International Rainwater Harvesting Alliance (IRHA), Conservation Agriculture, and UNCCD.

Perspectives and key aims

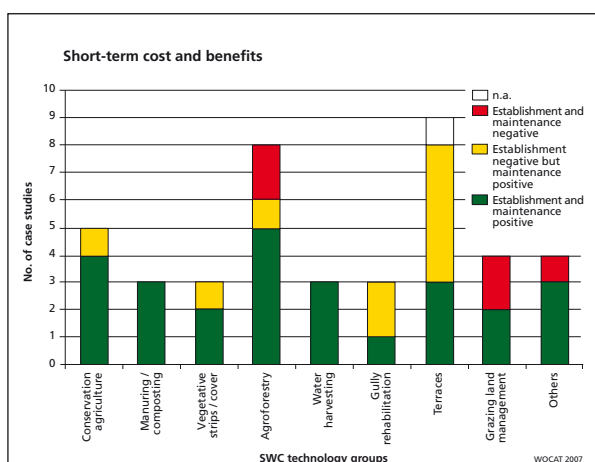
- The WOCAT overview book will be distributed to partners and sold to interested persons. The book will be used to stimulate further compilation and evaluation of national soil and water conservation knowledge, and to produce books at the national level.

- Major emphasis will be given to WOCAT mapping and the planned world map on conservation achievements.
- The WOCAT questionnaire will be revised and its modular system further developed to include aspects such as water harvesting, watershed management, conservation agriculture and other upcoming issues of global and national importance.
- Capacity building and quality management will remain important, especially provision of backstopping and training support for national and regional initiatives in SWC, including support for compiling national/regional overview books.
- Networking will be continued, also at the research level, through programmes such as the new 5-year EU 'DESIRE' project, where CDE coordinates one of the five working blocks (see page 19 of this report).



“where the land is greener”: Varzob Valley, Tajikistan

HP. Liniger



An example of the analysis made of 42 case studies from over 20 countries of all continents on soil and water conservation (from the book: 'where the land is greener' to be published in early 2007: Those cases that have rapid pay-back are worthwhile for every land user to invest in, as the increased returns are immediate. Those with short-term negative returns in relation to establishment, but positive returns in relation to maintenance, often require some support by projects, by the government, or the communities for a 'kick-start'. However, those with negative returns both from investment and maintenance (six examples) are unlikely to be taken up by small-scale subsistence farmers, unless they are awarded incentives. These technologies would inevitably require long-term external support if they are to be promoted – and could only be justified for other reasons, such as off-site benefits.

Main partners

WOCAT is organised as a consortium of national and international institutions and operates in a decentralised manner, through initiatives at regional and national levels, with backstopping from a management group and support from the secretariat at CDE. The WOCAT network consists of almost 60 organisations worldwide, including SDC, FAO, ISRIC, DANIDA, WASWC, UNEP, ICARDA, ICIMOD, the Syngenta Foundation for Sustainable Agriculture, and national institutions in partner countries.

The national WOCAT initiatives in Ethiopia and Bangladesh have followed the example of the global overview book and produced their own national overviews. Ethiopia is presenting about 38 technologies and approaches, while a book from Bangladesh contains 29 technologies and 9 approaches.

Contacts at CDE:

Hanspeter Liniger

Gudrun Schwilch



Rain-fed cultures on upper hillside, irrigated vegetable gardens on lower hillside, Highlands of Madagascar

U. Cämperli



Stabilisation of sand dunes, Inner Mongolia, China

M. Douglas

Sustainable Land Management for Policy Dialogue

Overall goal

The goal of this mandate is to integrate SLM-related issues into strategic international programmes and the global policy dialogue by strengthening the capacity of a select group of soil scientists and SLM specialists to make policy-relevant contributions.

Achievements

- Production of the report *Soils on the Global Agenda – Developing International Mechanisms for Sustainable Land Management*. This report provides an overview of international actions concerned with sustainable land management, based on contributions made at the Eurosoil Symposium by members of the IASUS network (International Actions for the Sustainable Use of Soil). It also aims, based on a survey among the members of the network, to concretise possible follow-up actions.
- On the occasion of the ISRIC workshop “World Soils Issues and Sustainable Development” held

on 10 March 2006, the creation of a World Soils Council (WSC) was initiated. In its final chapter, the report presents the WSC vision, its objectives, and structure. At the 18th World Congress of Soil Science, July 9-15, 2006, in Philadelphia, USA, the IUSS council supported the proposal to constitute the WSC.

Perspectives and key aims

- Support the newly founded WSC
- Production of special reports according to needs and requirements, in coordination with the WSC.

Main partners

International Union of Soil Science, ISRIC, WOCAT, the Swiss Agency for Development and Cooperation; the EU, the German Ministry for the Environment, WGBU, GEF, FAO, and UNEP.

Contacts at CDE:

Hans Hurni

Markus Giger



The CAMP team tests the CONMICOM game

CAMP



Training in local natural disaster risk management

CAMP

Learning for Sustainability (L4S)

Sustainable development calls for capacity building that promotes social learning based on dialogue and interaction among different stakeholders. Creative learning environments and tools are needed for successful integration of different actors' knowledge. *Learning for Sustainability* is an approach developed and tested by CDE in collaboration with Swiss and international partner institutions.

Overall goal

L4S aims to develop, test and implement innovative capacity building approaches and training tools that support sustainable solutions to current problems, both in resource management and other fields.

Achievements

- Simulation games: a new type of L4S tool. Together with partners, we developed several games that address *conflict mitigation in communities (CONMICOM)*; *local natural disaster risk management*; and *optimizing household strategies*. The games simulate complex and close-to-reality situations that have to be dealt with in teams. Players learn to develop problem-solving strategies, negotiate with their counterparts, plan short- and long-term measures, seek a balance between individual and collective interests, and try to find strategies for adapting to changing framework conditions. Learning transfer is secured by a debriefing session.
- Training of L4S trainers: capacity building is essential for disseminating the approach and enhancing the quality of its application. A training of trainers course held in Mozambique in 2005 aimed to increase local moderators' capacities in moderation skills, in managing participa-

tory learning processes, and in sustainable resource management. For this purpose, a specific training module was elaborated.

- In Mozambique, a training workshop in 'Transdisciplinarity in Rural Development' based on L4S, was held in 2006 for scientists and university lecturers, with the aim of developing capacities in integrative learning approaches.

Perspectives and key aims

In the coming years, L4S intends to achieve the following aims:

- Further improve and develop the toolset and didactic resources
- Contribute to the dissemination of these tools through information and promotion
- Continue and strengthen capacity building by training L4S moderators.

Main partners

Swiss Agency for Development and Cooperation (SDC), as well as NGOs and government organisations in Africa, Asia and South America.

"How did our game develop? How did we succeed in avoiding Darwin's power play and instead survive well in a kind of social market economy? What did my own behaviour contribute to this? In each answer, trust in the others' was part of the response. Trust and credibility as the prerequisite for the joint success."

Feedback from a player of the CONMICOM game

Contacts at CDE:

Ernst Gabathuler

Felicitas Bachmann



Old-established Angus cattle farm on the East Coast, north of Gisborne, New Zealand - an area where landslides in the past 20 years have become far more frequent and severe due to climatic extremes, forcing farmers to react very rapidly.

A. Zimmermann

International Journal *Mountain Research and Development* (MRD)

Mountain Research and Development, a quarterly, peer-reviewed international journal focusing on the world's mountain regions, has been edited at CDE since 2000. MRD presents cutting-edge research as well as insightful and innovative reports on development-related issues.

Overall goal

MRD's overall goal is to promote sustainable development in the world's mountain regions by communicating the results of important research, fostering discussion of development-related issues, and developing capacity in the South (support for authors). MRD collaborates with partners such as Mountain Forum (MF), the International Partnership for Sustainable Development in Mountain Regions, and other international organizations concerned with mountain issues, including the Mountain Research Initiative (MRI, in Bern), FAO and ICIMOD.

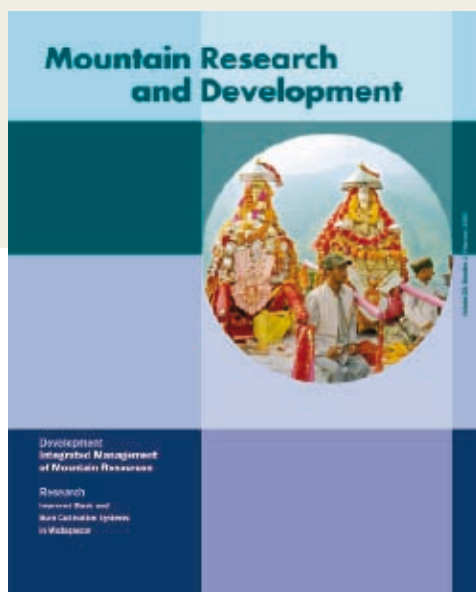
Achievements

- Publication of special issue in collaboration with the NCCR North-South
- MRD joins Developing Areas Specialty Group of the Association of American Geographers and Task force on Science Journals, Poverty and Human Development of the Council of Science Editors (CSE)

- Collaboration with MRD's principal partners was excellent. Regional Editors and members of the Editorial Advisory Board willingly made significant suggestions. IMS institutional members continued their financial and editorial support. Collaboration with Mountain Forum and the International Mountain Partnership was enhanced, including additional plans for future undertakings.
- MRD joins JSTOR electronic archiving programme
- Revenues from BioOne electronic subscription consortium increase substantially
- Publication of 2 special issues in 2006 with important partners, including funding from the Rockefeller Foundation
- Designing and planning survey of MRD readership, authors, reviewers on occasion of 25 years of journal's publication
- Publication of article about MRD in *Science Editor*, journal of the Council of *Science Editors*. MRD Managing Editor invited to join Editorial Advisory Board of *Science Editor*
- Negotiations for on-line version of journal for subscribers and key partners.

Perspectives and key aims

- Continue to publish outstanding peer-reviewed research on mountains and mountain people
- Take up key UN Commission on Sustainable Development (CSD) issues and other issues on the international development agenda
- Conduct and assess results of survey of readers, authors, reviewers



- Consolidate journal's position vis à vis donors
- Enhance MRD's position further through membership in BioOne programme, JSTOR, on-line version, and membership in professional society organizations
- Continue to increase number of subscribers in South receiving journal free of charge.

Main partners

Major donors which are at the same time partners are SDC, UNU, ICIMOD, and CDE. These are all institutional members of the International Mountain Society (IMS; copyright holder of the journal jointly with UNU). Other IMS members are FAO, CIP-CONDESAN, WWF International, and the Mountain Research Initiative. MRD maintains close links with the Mountain Forum and the Mountain Partnership.

"A super issue on Biodiversity in Mountains. Thank you!"

Professor Michael Stocking, University of East Anglia.

"MRD is an outstanding journal."

*Professor Richard A. Marston, President,
Association of American Geographers*

Contacts at CDE:

Hans Hurni

Ted Wachs

Mountain Agenda

Overall goal

The overall goal of Mountain Agenda is to enhance the position of mountains on the global development agenda. CDE hosts the secretariat of this informal global network of personalities from the research and development communities. Mountain Agenda is also the heading under which CDE's own mountain activities, i.e. those of its other programmes, are coordinated.

Achievements

- As a lead member of the International Mountain Partnership Research Initiative, CDE has conducted a survey among the members of this Initiative. Its aim is to prepare a competence map and a list of perceived core problems and issues in mountain research and development that will dominate the agenda in the coming decade. The Mountain Partnership team at FAO was most helpful in facilitating this survey. Results will be made available on the Partnership's website in early 2007.
- The Agenda supports the University of Cusco, Peru, in curriculum development for a new course in natural resource use and local livelihoods – an innovative process, because curriculum development includes local land users along with technical experts and members of academia. CDE's contribution is funded by SDC and NCCR North-South.
- As a part of the EU-Interreg III Programme, CDE was asked to backstop a futures workshop in several communities in the Swiss Alps. The workshop used a modified version of the L4S approach (see page 37 of this report). Other workshops will follow. The main aim is to see if the approach is suitable for use in developing and transition contexts. As a result of one of these workshops, a group of local residents set up a *Grotta di Cultura* – House of Culture – with a rich programme of cultural events open to residents and tourists.
- Mountain agenda was also engaged in writing a textbook on global mountain development. It will be published in the US in 2007.



Sent in the Swiss Alps

Sent Turissem

- Mountain agenda received a mandate from FAO to prepare the basic documents for the Celebration of International Mountain Day 2006, which is devoted to “mountain biodiversity for a better life”. The working group comprised members of CDE and of the Global Mountain Biodiversity Assessment Group (GMBA) of the University of Basel.

Perspectives and key aims

- Mountain Agenda will continue to initiate or support small-scale innovative approaches in mountain development, which have the potential for replication and for achieving concrete results.
- Mountain Agenda will also take an active stance in presenting its experience and lessons learnt relating to mountain research and development at international workshops and conferences. This includes know-how gathered by all CDE programmes that have a mountain or highland-lowland component.
- The Programme will continue to provide backstopping services to SDC. The focus is on policy advice and representation, including specific activities to commemorate or celebrate IYM+5.

Main partners

Swiss Agency for Development and Cooperation (SDC); International Mountain Partnership (FAO); International Mountain Society (IMS); International Journal *Mountain Research and Development* (MRD); Mountain Research Initiative (MRI).

Contacts at CDE:

Thomas Kohler

Susanne Wymann

Backstopping Mandate for the Environment and Natural Resources Section of SDC

Overall goal

The overall goal is to support the Natural Resources and Environment Section of SDC so that its stated goal to improve livelihoods through the establishment of sustainable resource management regimes can be achieved. CDE provides backstopping services concerned with policy development, international conventions and agreements, and thematic and operational backstopping related to SDC's programmes.

Achievements

Support for SDC was provided in a wide variety of areas. Amongst many others are:

- The Forum Sustainable Land Management held a workshop on “Synergies between the Rio conventions and their relevance for cooperation projects”. Another workshop focussed on “Transboundary Management of Natural Resources”. Both workshops brought together development specialists from SDC, Swiss NGOs, partners from abroad, and people from universities.
- The International Conference on Agricultural Research for Development: European Responses to Changing Global Needs was held from 27-29 April 2005 at the Swiss Federal Institute of Technology, ETH Zurich, Switzerland. The conference was prepared by EFARD under the chairmanship of Hans Hurni.
- Hans Hurni, with support from a CDE team, has been assigned the role of Coordinating Lead Author of Chapter 1 of the International Assessment of Agricultural Science and Technology for Development (IAASTD). This is a unique international effort that will evaluate the relevance, quality and effectiveness of agricultural knowledge, science, and technology.



Goldrush in Mongolia

A. Kläy

- At the Nature Congress in Basel, CDE organized a workshop on the results of the Millennium Ecosystem Assessment and its relevance to poverty alleviation.
- CDE provided backstopping for the identification and definition of a new SDC programme in Mongolia.
- Together with the NCCR, CDE provided inputs to the international seminar on “MDGs, Poverty and Environment” organised by IUCN and SDC on 23/24 June 2005.
- Contributions were made to SDC’s work on economic instruments for the management of natural resources.
- The “Promoting Local Innovation” tool has been further developed. Altogether, four workshops were held in Bolivia and Peru. The experiences are documented in an attractive brochure and a workshop handbook has been adapted and finalized.
- As part of a Swiss Consortium, mandated by SDC, CDE is actively involved in ERA-ARD, an EU project aiming to improve synergies between European research programmes in agricultural development. CDE’s input focuses on capacity building and project cycle management.
- Finally, on the occasion of the International Year on Deserts and Desertification (IYDD 2006), CDE contributed, through participation at the CST-UNCCD Conference in Nairobi in October 2005, to elaboration of a brochure for SDC entitled “Coping with drought” and, in collaboration with

NCCR, the organisation of a Symposium on “Desertification and Global Change” (see pages 28-29).

Perspectives and key aims

The objectives of our collaboration with SDC are to give support to conceptual and practical needs with a focus on themes such as:

- economic issues in sustainable use of natural resources
- strategies to cope with climate change
- energy management and biofuels
- multilevel approaches in sustainable land and soil management
- impact monitoring and assessment.

The approach to such topics will be an integrative one that puts the multifunctional element of natural resources at the centre. Capacity building at different levels, aiming at increasing coherence of natural resource management regimes, will be another important objective. In addition to work with SDC, we also continue to work with a range of other partners.

Main partners

Swiss Agency for Development and Cooperation (SDC), Helvetas, Intercooperation, Centre for International Agriculture (ZIL), SHL. EC, IIED, IUCN, World Bank.

Contacts at CDE:

Markus Giger
Andreas Kläy

CDE Info Service

CDE's Info Service, mandated by SDC, documents and disseminates information related to the environment and natural resources in international cooperation.

Overall goal

The overall goal is the provision of information in the field of environment and natural resources for a development audience. In this way CDE's Info Service aims to contribute to knowledge acquisition processes with its main partners, SDC and its network, and other interested institutions or individuals.

To achieve this goal, the Info Service operates in close collaboration with two other documentation and information services, InfoAgrar and Inforest, under the label *InfoResources*. The main activities of InfoResources consist of the publication of a newsletter, "*InfoResources News*", five times a year; a publication focused on a specific theme, "*InfoResources Focus*" three times a year; and the processing of requests for bibliographical searches. At non-regular intervals, another publication, "*InfoResources Trends*", provides the public with an overview of trends in the context of environment and development.

Furthermore, the Info Service supports CDE staff, students and other interested persons by managing the CDE library and related services. It also coordinates CDE's knowledge management scheme.

Achievements

- Contribution to the publication of five issues of "*InfoResources News*" in 2005 and three issues up to June 2006
- Publication of one issue of "*InfoResources Focus*" in 2005, dealing with environmental conventions and global governance, and one in 2006, entitled "*Sustainable Energy - Rural Poverty Alleviation*"; collaboration on the publication of two issues, each under the direction of one of the other service members
- Collaboration on the publication "*InfoResources Trends 2005*" with the title "*Depletion of Natural Resources – Implications for Development*", compiling personal assessments of predicted changes by experts from the realms of politics and science, as well as from implementing agencies or NGOs around the world
- Processing of various search requests.

Perspectives and key aims

Along with *InfoResources*, CDE's Info Service began a new four-year phase in January 2006. Maintaining the same overall goal, this phase will concentrate on:

- Intensifying contact with institutions in the South and East, focusing on creation of dynamic partnerships in knowledge exchange and dissemination. The form and extent of these partnerships will be defined during the phase
- Consolidating the publications and other services of *InfoResources*; maintaining and improving their quality through thematic relevance, selected and annotated information, and a combination of policy- and implementation-related issues
- Examining structural and organizational issues among the three members of "*InfoResources*", with a view to possible changes in the following phase.

Main partners

InfoAgrar, hosted by the Swiss College of Agriculture; Inforest, hosted by Intercooperation, a Swiss NGO.

Some feedback from our readers

We are receiving the print version of InfoResources and it is read with interest by at least 10 scientists. It contains really very useful information.

Dr. Anil Kumar, Indian Grassland and Fodder Research Institute

Un colegas me han hecho llegar algunos temas relacionados con artículos publicados por Inforest No1/06 los cuales considero muy buenos e interesantes además y que constituyen fuente importante de información para mi trabajo.

*Joaquín Rodríguez Guerra, Director de
Proyectos ACPA - COSUDE*

Contacts at CDE:

Fani Kakridi Enz

Susanne Wymann von Dach

University

*The **University Section** consists of all teaching-related functions, including supervision of work done by students from the undergraduate to the post-doc level. This involves CDE and its colleagues at the Institute of Geography at the University of Bern, of which CDE is a department, as well as people at other institutions of higher learning.*

Integrative Courses in Geography

The Centre for Development and Environment (CDE) became a department of the Institute of Geography of the University of Bern in 1997, joining the Department of Human Geography, the Department of Physical Geography and the Department of Soil Science.

CDE offers formal courses as part of the Geography curriculum (major and minor for the Bachelor's and Master's degrees). CDE's courses focus particularly on developing, transition and developed countries, and relate to

- (a) sustainable regional development,
- (b) natural resources management,
- (c) mitigation of syndromes of global change, and
- (d) aspects of international cooperation.

While professors Urs Wiesmann and Hans Hurni are primarily responsible for CDE's educational activities, they are supported by a number of selected CDE staff with whom they share lecturing duties. The courses offered in 2005 and 2006 can be viewed at www.giub.unibe.ch.

Bologna Reform

A major shift in 2005 was the transition from a diploma in Geography to a Bachelor's and Master's programme in Geography. Integrative themes are much more fully represented in the latter curricula, which meant that all courses had to be designed

anew. Because many students were still finishing their studies under the old curriculum, large numbers had to be accommodated in the winter semester of 2005/06. For example, Urs Wiesmann and Hans Hurni offered a seminar on indicators of global change, in which exactly 100 students elected to participate and write seminar theses. Never before had so many students been registered for a single seminar in the 120-year history of the institute.

Supervision of Master's and Doctoral Theses

About 20% of the Institute's students usually decide to do a Master's or Doctoral thesis in the framework of CDE's programmes and projects world-wide. As a consequence, about 20 diploma theses and about 5 PhD theses are completed under the supervision of CDE every year. Because the latter usually work on their theses for 3-4 years, about 35-40 students must be supervised by CDE's staff on average, a work load that has to be shared by all senior staff of CDE, i.e. usually PhD holders who have 10-20 years of experience in development research. In the period from July 2005 to June 2006, 12 diploma theses and 9 dissertations were completed on CDE themes. Due to the large number of research programmes in the Research Section, particularly the NCCR North-South, as well as possibilities to do thesis work in programmes and projects of CDE's Outreach Section as well, all students wishing to do thesis work on CDE's integrative themes were able to find challenging topics. In the near future, Bachelor's theses will also be added to this activity line.

Educational Activities at other Universities

CDE staff members perform a number of duties at other universities. For example, Urs Wiesmann is also a (part-time) professor at Nairobi University (Kenya), where he regularly offers courses. Karl Herweg has been nominated as part-time associate professor at Mekelle University (Ethiopia), with regular course work there. Stephan Rist and Hans Hurni acted as external supervisors for PhD candidates at different universities in Switzerland and Europe.

Discussions on a 'Swiss International Graduate School of Sustainable Development'

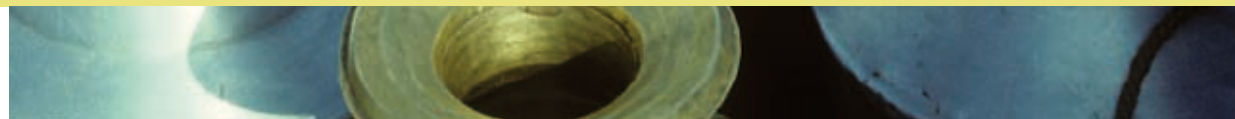
The idea of a joint, inter-university 'Swiss International Graduate School of Sustainable Development' has been elaborated by the partner institutions of the NCCR North-South, which include the universities of Basel, Zürich and Geneva, and the Federal Institutes of Technology in Lausanne and Zürich. This proposed 'school' would include a new, integrative Master's course (still under discussion), but

would also offer a PhD programme and post-doc projects for researchers who want to specialise in sustainable development. Because of its international focus, continuing research partnerships with developing and transition countries would be indispensable. The current partners of the NCCR North-South, which are located in 9 regions world-wide, offer a unique opportunity for long-term cooperation. In 2005-2006, preliminary ideas and concepts for the proposed school were discussed among the group and with other partners, and the first steps towards joint collaboration have now been taken. In 2007-2008, this idea will be further elaborated and negotiated, as major funding will be needed once the NCCR North-South programme is phased out, in 2013 at the latest. Provided that the project materialises in this form, and a Master's course in sustainable development is agreed upon, this programme could start as early as 2009. Major decisions about long-term financial support will nevertheless be needed to pursue this project further.

Contacts at CDE:

Hans Hurni

Urs Wiesmann



Operations

The *Operations Section* consists of all units that provide a technical service. Priority is given to services for CDE. Services are also increasingly provided for external parties, especially so in editing and translation, and in geoprocessing/earth observation.



Songwe River Basin, Accessibility Map

S. Künzler-Roth, A. Heinemann

Geoprocessing

Geographic Information Systems (GIS) and Remote Sensing, with their methods and tools, play an important role in CDE's research and development approach. The Geoprocessing Unit offers a broad range of services both to in-house programmes and projects and to external clients in Switzerland and in partner countries, and is also involved in university teaching.

Overall goal

In the context of management of natural resources, sustainable regional development, crisis management and humanitarian aid, the Unit aims to provide tailor-made solutions in the following fields:

- Compilation of topographic and thematic maps based on analogue and digital spatial datasets, processed satellite images, and field surveys
- Analysis, modelling and visualisation of spatial biophysical and socioeconomic dynamics
- Development of tailor-made solutions for spatial data processing and management and web-based visualization, querying and distribution
- Capacity development in the effective use of GIS, Remote Sensing and GPS Satellite Surveying and the respective institutional development
- Backstopping in planning, implementation and monitoring of projects with spatial components.



Capacity building is an important component in geoprocessing

T. Gurtner

Achievements

- A modular training system in geoprocessing has been conceptualized for ESAPP (see page 22). Training modules covering applications of GIS, Remote Sensing and GPS Satellite Surveying have been developed and tested in workshops. The system allows CDE to offer standardized training according to the needs of requesting institutions, and to use the modules as a basis for tailor-made capacity development.
- On behalf of DFA and SDC, a comprehensive geodatabase for Southern Sudan has been compiled, and updated topographic maps have been distributed among the international community to support crisis management activities. This project is presented in greater detail on page 47.
- The Unit provided backstopping services to SDC in the field of geoprocessing in international cooperation. The activities concentrated on updating SDC on current trends and developments and on competence mapping of potential partner institutions. Moreover, the Unit responded to various short-term requests from the development cooperation and humanitarian aid divisions of SDC, primarily for rapid mapping.
- Collaboration with various departments of the Ethiopian Administration in the field of management of natural resources was initiated through organization of an ESAPP workshop on geoinformation processing. A beta-version of a watershed

management application has been developed to demonstrate the potential of web-based data platforms.

Perspectives and key aims

- Modelling of additional basic layers aiming to enhance the map of agro-ecological zones of Ethiopia
- Conceptualization of a regional programme in Sudan, aiming to capitalize on the compiled geodatabase by handing it over to local institutions, followed by capacity development activities.
- Implementation of methodological research findings in NCCR North-South geoprocessing for in-house programmes and partner institutions.
- Capitalisation on relevant project experience, lessons learnt, and proven practices relating to Geoprocessing in international cooperation for SDC.

Main partners and donors

Swiss Agency for Development and Cooperation (SDC), Swiss Federal Department of Foreign Affairs (DFA), Eastern and Southern Partnership Programme (ESAPP), Swiss National Centre of Competence in Research North-South (NCCR).

Contacts at CDE:
Thomas Gurtner
Jürg Krauer

Peace Building in Sudan: GIS in Conflict Management

War, crises and conflicts are among the most fundamental development problems. A large proportion of violent conflicts take place in developing and transition countries. Within a short time, these conflicts destroy the results of many years of development or hamper progress in building civil societies.



Governors' Forum in Juba (27.4.–1.5.2006); Mapping workshop with governors and ministers of Southern Sudan

J. Krauer

In peace facilitating and conflict transformation, Switzerland is strongly committed at a multilateral level, i.e. to the UN and other international organisations, where it supports humanitarian assistance, demining campaigns, and efforts to include non-state actors in peace processes. The Swiss Government, together with other international players, also provides its good offices in various forms, an example of which is mediation at the highest level in Sudan. In this case, Switzerland presided over the conclusion of a cease-fire agreement in the Nuba Mountains in January 2002, which was signed at the Bürgenstock resort in Switzerland, and it has supported dialogue and negotiations by a special representative for conflict issues which led to a peace agreement in January 2005.

The peace process was supported by maps and geographic databases produced at CDE and used for policy dialogue, covering different thematic (geo-hydrological) and topographic (overview, field and state) fields, geospatial information and Internet services (www.cde.unibe.ch & [\[tong.org\]\(http://tong.org\)\). CDE is experienced in products for peace and reconstruction, starting with instruction materials for 'train the trainer' courses at the Geneva International Centre for Humanitarian Demining \(GICHD\), geospatial databases for the Swiss Foundation for Mine Action \(FSD\), landmine information systems for the UN's Mine Action Centre in Eritrea, and finally, mapping of reconstructed villages for SDC's Department of Humanitarian Aid.](http://www.gur-</p>
</div>
<div data-bbox=)

The period covered by this report was determined by the humanitarian disaster in the Darfur area in Western Sudan and the efforts made in the peace process between the government and the southern Sudanese People's Liberation Army (SPLA). Together with the Humanitarian Information Center (HIC) in Al Fashir, CDE has produced a completely revised field map series for the Darfur area. The six topographic map sheets include updated infrastructure layers, settlements with p-codes, and vulnerable areas. Like all other CDE-maps of Sudan, thousands of copies of the Darfur Map Series were made available through the Swiss Embassy in Khartoum to serve all UN agencies, NGOs (Medair, MSF, Terre des hommes), WFP, and the African Union, with high quality maps for its field staff. For the public map files were posted in different formats on CDE's Internet server. In total, about 50,000 map downloads were recorded within a year.

The GIS products compiled for the Government and the UN in Southern Sudan, mainly geographic databases and map series at a scale of 1:500,000 (14 map sheets), were widely used among the humanitarian community to enhance deployment capacity in emergency assistance to four million internally displaced people, to reconstruct damaged water and sanitation systems, and to rebuild infrastructure to improve the economic basis for agriculture and livestock-breeding.

After four years of cooperation with the Swiss Department of Foreign Affairs, the Swiss Agency for Development and Cooperation is taking the lead in relation to development in Sudan. There is hope that scattered activities (geoinformation support, capacity development, and institutional cooperation) can be concentrated in future in a joint overall programme for Sudan, including aspects of regional development.

Editing and Translation

CDE's editing and translation service exists to ensure that translations and editing of texts produced by CDE – and an increasing number of external customers – are done with maximum care and accuracy. A team of 3 CDE staff members translates primarily from German and French into English and works with authors of texts in English to achieve final versions for publication.

Overall goal

The editing and translation service aims to facilitate translation and final language editing of all CDE publications, and to provide language counselling (on a daily basis) and language courses as well. Services are provided for donors such as SDC, as well as organisations involved in work and initiatives that relate to the work of CDE. The team will use experience garnered in preparing scientific articles and books for publication to prepare a Scientific Writing and Publishing Module (under mandate from the NCCR North-South).

Achievements

- Translation of Jungfrau-Aletsch-Bietschhorn World Heritage Site Management Plan (see also page 17)
- Translation of *Humanitarian Challenges: The Dilemmas of Emergency Aid*, a CARITAS Position Paper
- Translation of major SDC publications on desertification
- Editing of significant SDC/CDE publications on international soil initiatives
- Editing of major NCCR North-South publication on gender and sustainable development
- Translation of text on transdisciplinarity guidelines for td-Net, Network for Transdisciplinarity in Science and Humanities
- Significant work on NCCR North-South glossary and publication strategy
- Integration and coordination of both internal and external mandates among 3-member team
- Translation of several periodical publications (SDC global Newsletter; InfoResources)
- Preparation and testing of a Scientific Writing and Publishing module for the NCCR North-South.

Perspectives and key aims

- Continued integration and coordination of mandates, with priority on CDE publications
- Soliciting among select organisations and partners for mandates of interest to CDE
- Further promotion of synergies between work of CDE and external partners
- Further development of NCCR North-South glossary, publication strategy, and scientific writing and publishing module.

Main partners

Main partners are, first of all, CDE's own programmes and mandates. Work done for external partners comes from SDC (worldwide Newsletter, special reports, etc.) and other organisations concerned with development such as Caritas Switzerland, LBL Lindau, and td-Net.

Contacts at CDE:

Ted Wachs

Knowledge Management

Overall goal

The need to centralize and make internally available the knowledge that is generated within CDE remains the central concern and goal of Knowledge Management at CDE. The size of CDE and the frequent absences of its personnel on missions make it necessary to create and maintain platforms for knowledge exchange and to include the use of those platforms in the workflow of CDE's staff.

Achievements

- A tailor-made database destined to store information according to internal criteria has been created and is accessible through the Intranet
- The collection of key messages and relevant information from thematic fora were institutionalized
- Face-to-face meetings with the Knowledge Management team have incited CDE personnel to share their knowledge through available platforms.

Perspectives and key aims

Despite general pressures of time that represent a serious constraint at present, the Knowledge Management team will keep the same primary goal and concentrate in the short term on the following activities:

- Systematization of work processes that allow CDE's staff to participate in knowledge management processes in harmony with their project activities and that require the least possible additional time
- Completion and debugging of the Knowledge Management database, especially the Competence Mapping Module
- Implementation of the "Managerial Assistant" a tool meant to facilitate and support operational workflows.

Contacts at CDE:

Fani Kakridi Enz

Internet, Intranet, and Database Development

CDE knowledge sharing on new web site

In order to fulfill its mission, CDE aims to share research results, approaches and tools as well as experiences with its partners and the general public worldwide. Beside traditional print publications (such as *Development and Environment* reports or manifold project reports), personal face-to-face meetings and workshops, the internet offers a unique communication platform. CDE has invested a great deal to take advantage of this opportunity. The new web site has become an important pillar of CDE's communication paths.

Achievements

- The new web site (www.cde.unibe.ch), launched in early 2005, provides up-to-date insights from programs and projects, which can be accessed either according to theme or region. Tools and approaches are presented with more in-depth information. Students find information on ongoing courses, including downloads of lectures, and on proposed and ongoing theses.
- A comprehensive online publication database and a project database structure have been developed. These two databases constitute an important backbone for the dynamic web site and are available for all CDE programmes and projects.

Perspectives and key aims

- The up-to-date web site will not only be a showcase of CDE's activity but will also become an important tool for knowledge sharing and net-



work activities. Interactive features such as a knowledge portal and the content management system will enhance its facilities.

- The publication database will provide a comprehensive overview of CDE's publications (from research papers to project report, Videos, DVDs, etc).

Highlights

- In February 2006 ESAPP launched its new project database offering information on more than 100 projects and partners in East and South Africa. See the following site for details: www.cde.unibe.ch/Regions/ESAPP_Proj_Rs.asp. The ESAPP site is an essential means for building its partner network.
- The Sudan Maps site (www.cde.unibe.ch/Tools/GIS_Sudan_TS.asp) and the Pamir Web GIS site (<http://cdegis.unibe.ch/pamir/>) offer digital maps as free downloads
- Every two months the homepage presents highlights on projects, tool development, and new publications.

Contact at CDE:

Susanne Wymann



Personnel

(as per 31 December 2005)

Board of Directors

Name	First name	Position
Hurni	Hans	Prof., geographer; (100%)
Kläy	Andreas	Forest engineer; (80%)
Kohler	Thomas	PhD, geographer; (80%)
Wiesmann	Urs	Prof., geographer; (100%)
Balsiger	Urs	MBA, economist; (80%)

Programme Staff

Name	First name	Position
Bachmann	Felicitas	MA, anthropologist; (70%)
Breu	Thomas	MSc, human geographer; (100%); plus PhD cand.
Brüschweiler	Sabine	MSc, ethno-botanist; (60%)
Cassel-Gintz	Martin	PhD, geo-scientist; (50%)
Ehrensperger**	Albrecht	MSc, geographer; (25%); plus PhD cand.; (90%)
Gabathuler	Ernst	MA, social pedagogue/agronomist; (100%)
Gallati	Justus	MSc, physicist; PhD cand.; (100%)
Gämperli Krauer	Ulla	MSc, human geographer; (25%)
Gerber	Kurt	MSc, GIS/IT specialist; (80%)
Giger	Markus	Agroeconomist; (80%)
Gräub	Andreas	MSc, human geographer; (25%)
Guinand	Yves	PhD, human geographer; (100%)
Gurtner	Matthias	MSc, soil conservation specialist; (50%)
Gurtner	Tom	MSc, MSc, GIS/IT specialist; (90%)
Heinimann	Andreas	MSc, environmental scientist; (100%); plus PhD cand.
Hergarten	Christian	MSc, geoprocessing specialist; (90%)
Herweg	Karl	PhD, physical geographer; (80%)
Hoeggel	Udo	MSc, environmental economist; (100%)
Imhof***	Regula	Forest engineer; (100%)
Krauer	Jürg	MSc, GIS/IT specialist; (90%)
Ledermann	Thomas	MSc, physical geographer; (100%)
Liniger	Hanspeter	PhD, physical geographer; (100%)
Maselli	Daniel	PhD, biologist/ecologist; (100%)
Mathez-Stiefel	Sarah-Lan	MSc, ethno-botanist; (60%)
Meessen	Heino	PhD, landscape ecologist; (60%)
Mekdaschi	Rima	PhD, agronomist; (30%)
Messerli	Peter	PhD, human geographer; (100%)
Niederer***	Peter	MSc, physical geographer; (80%)
Ott	Cordula	MA, anthropologist; (60%)
Pfister	Franziska	PhD, environmental scientist; (80%)

Portner	Brigitte	MSc, human geographer; (50%)
Rist	Stephan	PhD, agronomist; (95%)
Roden*	Paul	MSc, human geographer; (100%)
Roth	Silvia	MSc, GIS/IT specialist; (80%)
Schichler	Barbara	MSc, physical geographer; (40%)
Schwilch	Gudrun	MSc, physical geographer; (60%)
Stillhardt	Brigitta	MSc, soil scientist; (60%)
Wachs	Ted	PhD, historian/editor; (100%)
Wallner	Astrid	PhD, anthropologist ; (40%)
Wolfgramm	Bettina	MSc, environmental scientist; PhD cand.; (100%)
Wymann	Susanne	MSc, physical geographer; (40%)
Zimmermann	Anne	PhD, language scientist/editor; (90%)

Service Unit Staff

Name	First name	Position
Aerni	Isabel	Assistant, MSc candidate; (100%)
Balsiger	Nicole	Financial administrator; (30%)
Buchser	Marc	Programmer; (90%)
Heierle	Emmanuel	IT coordinator; (80%)
Hetey	Christine	Librarian; (30%)
Hoppler	Jöri	Assistant, MSc candidate; (25%)
Hösli	Christoph	Assistant, MSc candidate; (20%)
Hurni	Kaspar	Assistant, MSc candidate; (25%)
Iseli	Monika	Editorial assistant; (40%)
Jöhr	Franziska	Secretary; (80%)
Jost	Anita	Secretary; (50%)
Kakridi Enz	Fani	MA, historian / documentalist; (60%)
Kummer	Simone	Desk-top publishing specialist; (60%)
Kummer	Tiziano	IT assistant; (40%)
Schnegg	Ralph	Librarian; (30%)
Thibault	Marlène	Assistant, translation services; (40%)
Vollenwyder	Barbara	Secretary; (90%)
Willi	Barbara	Administrative assistant; (40%)

* duty station: Asmara, Eritrea

** duty station: Nakuru, Kenya

*** duty station: Bishkek, Kyrgyzstan

Finances

Financial Account 2005 (CHF)*

Income

External funds

Programme income	3,246,000
Other income (service units, etc.)	552,000
Subtotal	3,798,000

University funds**

Contribution to office rent	186,000
Contribution to personnel expenditures	535,000
Contribution to operating expenses	64,000
Contribution to special personnel expenditure	710,000
Subtotal	1,495,000
TOTAL INCOME	5,293,000

Expenditures

Personnel

Salaries	4,162,000
Social benefits	502,400
Compensation costs***	-16,100
Subtotal	4,648,300

Other expenditures

Office rent	213,000
Office operating expenses	13,000
Printing/literature	48,000
Travel	36,300
Miscellaneous	34,000
IT (CDE share)	120,400
Subtotal	464,700
TOTAL EXPENDITURES	5,113,000

Carry-over to tied reserves	60,000
Carry-over to general reserves	120,000

TOTAL	5,293,000	5,293,000
--------------	------------------	------------------

* Funds managed through CDE account at headquarters in Bern

** University of Bern. In compensation for services rendered in teaching, supervision, general university functions

*** For military and civil services

Total Entrusted Funds 2005

Outreach Programmes	Total funds	Funds CH*	Entrusted funds
ESAPP	1,339,000	401,000	938,000
SLM, Eritrea	750,000	300,000	450,000
Simen Mountains Programme, Ethiopia	55,000	55,000	0
Central Asia Mountain Programme (CAMP)	850,000	350,000	500,000
Exhibition Central Asia	75,000	75,000	0
L4S in Tajikistan	105,000	40,000	65,000
GEF- Pamir	60,000	60,000	0
L4S-Learning tool	91,000	91,000	0
Research Programmes			
NCCR North-South Management Centre	900,000	500,000	400,000
NCCR North-South Work Package 4: Natural Resources in SD	931,500	465,750	465,750
NCCR North-South Transversal Package	540,000	50,000	490,000
NCCR North-South Work Packages 1-3	3'994,500	0	3'994,500
Alpine Research JAB WHS	30,000	30,000	0
COST-Soil and Water Conservation	130,000	130,000	0
Policy Mandates			
WOCAT	530,000	430,000	100,000
SLM Policy Initiative	50,000	50,000	0
<i>Mountain Research and Development</i>	510,000	510,000	0
Backstopping Mandate, SDC	770,000	770,000	0
Mountain Agenda	71,000	71,000	0
Development and Environment Info Service	250,000	250,000	0
Operations			
Editing and Translation	50,000	50,000	0
Earth Observation/Geoprocessing	695,000	695,000	0
University Funds			
University Funds**	785,000	785,000	0
Additional Funds	710,000	710,000	0
Overall Total	14,272,000	6,868,750	7,403,250

* Funds managed by CDE Headquarters in Bern

** University of Bern. In compensation for services in teaching, supervision, general university functions, and support for NCCR North South

CDE Balance of Accounts as per December 2005 (rounded)*

ASSETS

Current assets

Liquid funds	2,766,000
Accounts receivable	5000
Total current assets	2,771,000

Fixed assets

EDP equipment	69,000
Furniture	34,000
Total fixed assets	103,000
TOTAL ASSETS	2,874,000

LIABILITIES

Current liabilities

Accounts payable	8,000
Project accounts payable	315,000
Total current liabilities	323,000

Equity capital

Capital	1,967,000
General reserves	204,000
Tied reserves	260,000
Carry-over in 2005 to general reserves	120,000
Total equity capital	2,551,000

TOTAL LIABILITIES	2,874,000
--------------------------	------------------

* Figures in CHF

